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ABSTRACT

This document reviews the goals and accomplishments of phase two of a three-year project to develop state-studies materials for Virginia schools. It is presented in seven chapters. Chapter I introduces the project idea, reviews the first phase of planning and evaluation design, and explains the project goals for phase two, materials development. Chapter 2 analyzes interagency cooperation in materials development, sequencing of production tasks, planning for pilot testing, and dissemination of results. Chapter 3 documents the impact of state needs and guidelines on curriculum decisions relating to amount of text materials, a skills focus, and instructional strategies. Time and budget constraints were indicated as factors in the curriculum-decision process. Chapter 4 describes the process and results of local pilot testing of fourth-grade materials; chapter 5 analyzes results of state piloting. Chapter 6 documents procedures used to determine the readability of two units. Chapter 7 summarizes project achievements during the 1979-80 production year. Accomplishments included production of student and teacher print materials for two fourth-grade units, local and state piloting, establishment of readability of fourth-grade units, and appointment of a seventh-grade materials writing team. (AV)

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TITLE IV-C

COMMONWEALTH STUDIES PROJECT

PHASE II: DEVELOPMENT AND PILOTING

SO013795

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September, 1980

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Chapter I

INTRODUCTION: THE COMMONWEALTH STUDIES PROJECT

The Commonwealth Studies Project was funded in 1978 to provide basal fourth and seventh grade Virginia studies materials for potential use throughout the Commonwealth. There were three unique aspects to this project: a) the conceptual design for developing Virginia studies materials with pedagogical and academic integrity responsive to local and state needs, b) the role of teachers in developing the materials, and c) the interagency cooperative planning and curriculum development model.

This chapter will: 1) briefly review the Proposal which establishes both the need for Virginia studies materials and the need for an innovative approach to the development of these materials; 2) review the plans and achievements of the first year of the project, and 3) provide an overview of the plans and achievement of the second year of the project, Phase II: Development and Piloting.

The Project Proposal, 1978: State Need for Materials

The Proposal indicated that Virginia Studies materials were needed since 1) state law, State Board of Education regulations and the Board's Standards for Accrediting Elementary Schools required the study of Virginia (Proposal, p. 16); 2) available materials were not judged adequate or free from bias by educators, and 3) the Virginia Council of Social Studies, Virginia Consortium of Social Studies Supervisors and College Educators, Virginia Educational Association and Virginia Congress of Parent-Teachers

Associations had passed resolutions calling for the development of state-study instructional materials. (Proposal, p. 26)

The innovative curriculum development procedure involving teachers and interagency cooperation was proposed because materials developed by other means (i.e., the private sector, a text commission or services of State Department of Education) had failed to meet the educator's needs. (Proposal, p. 16).

In the proposal for development of new state studies materials, procedures for development and proposed characteristics of materials were suggested so both process and product would not be open to previous criticisms. The tentative list of criteria for the proposed state studies program reflected what was viewed at the time the proposal was written as "characteristics which would insure materials would meet local and state needs." This list of tentative characteristics would become partially standard and partially a touch stone for project participants, writers and evaluators alike. Some of the characteristics in this tentative list would be reaffirmed, some adapted. This evaluation report describes the process established for understanding, analyzing, meeting and adapting these characteristics while developing Commonwealth Studies materials.

This project was proposed by the Virginia Department of Education with the assistance of Hanover County Public Schools. This interagency model employed in the proposal development was also to function during the planning and development phases of the Commonwealth Studies Project.

Phase I: Planning, 1978-79

The enormity of the task of developing basal materials for two grade levels was increasingly appreciated by project participants as planning for the evaluation of this process took place during the Fall of 1978. A three-year plan designating the first year as Phase I: Planning, the second year as Phase II: Development, and the third year as Phase III: Piloting and Revision was developed. These phases would overlap as the Projected Three-Year Plan reported on in the 1978-79 Evaluation Report shows (p. 9).

Insert Figure 1 here
Projected Three Year Plan 1978-81

Many organizational and management decisions were to be made the first year.

> The Planning Phase would develop the processes and interagency arrangements necessary for achieving the project goals within three years . . . to establish (these) processes would require identification of tasks and . . . needed expertise (to accomplish these tasks. 1978-79 Evaluation Report (p. 5)

The proposal had listed suggested general guidelines for the development of materials, however, specific plans for implementing development had not been outlined. A materials development cycle (see Figure 2) was established to clarify the planning process and the role project participants would play in that process.

Insert Figure 2 here
State Studies Materials Development Cycle

PROJECTED THREE YEAR PLAN, 1978-81
FOR 4th GRADE AND 7th GRADE
STATE-STUDIES MATERIALS DEVELOPMENT

1978-79 Planning	1979-80 Development of 4th & 7th grade State-Studies (Hanover)	1980-81 Field-Testing and Revision (Hanover and/or other sites)
- 1st year plan, 1978-79 - Evaluation Design, 1978-79 - Three year Master Plan - Organize and direct tasks of: a) Project Planning Council b) Teacher Planning Council c) Producers d) Curriculum Specialists e) Curriculum Consultants f) State-Studies Reviewers g) State-Studies Resource Consultants - Plan and/or initiate sub-contracts	- Production of each unit - Specialist for integrating units, sub-contract items, editing, teacher guide - Sub-contract instructional items - Set up field-testing sites for 1980-81 - Develop student evaluation procedures for each unit - Multiple copies of each unit and teacher guides	- Field-test of each unit - Revision of units as field-tested - Revision of entire State-Studies and teacher guides
Evaluation Focus 1) Interagency Planning Model 2) State-Studies Structure and unit outlines by Project Criteria 3) Project Management	Evaluation Focus 1) Curriculum Development Model of teacher writing teams 2) Quality of each unit and State-Studies by Project Criteria 3) Project Management	Evaluation Focus 1) Formative evaluation to aid curriculum development 2) Field-testing model 3) Teacher-Administrator reactions, usage 4) Project Management

FIGURE 1
PROJECTED THREE YEAR PLAN, 1978-81

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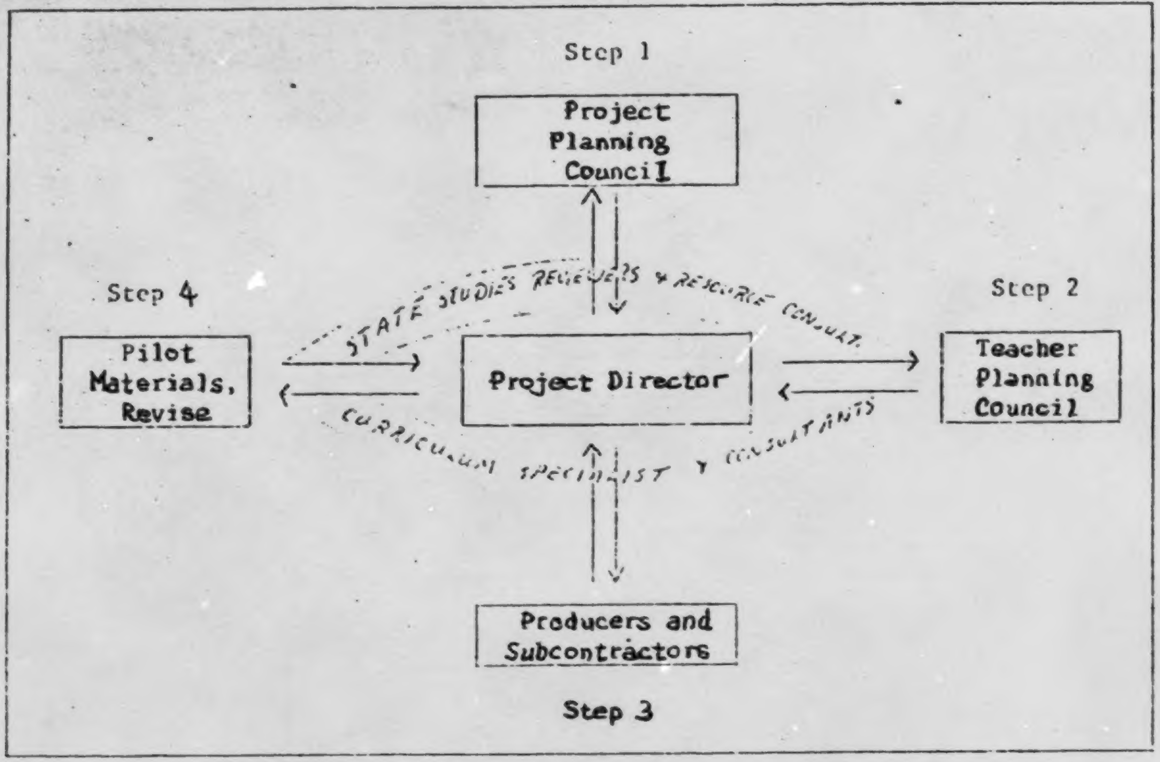

(State-Studies Reviewers and Resource Consultants
Curriculum Specialist and Consultants)

FIGURE 2
STATE-STUDIES MATERIALS DEVELOPMENT CYCLE

PROCESS

Step 1

Plan, advise, suggest

Step 2

Organize into workable form.

Step 3

Work into product.

Step 4

Field-test project-developed materials and revise.

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Four groups were identified in this process: Teaching Planning Council, State Studies Reviewers and Resource Consultants, Curriculum Specialists and Consultants and the Project Planning Council.

The Teaching Planning Council functioned, not as a unit but as a constantly changing group of individual teachers. Members of this group came together initially in a summer workshop to identify Virginia studies content. Some of these teachers would laterindividually provide feedback on materials as drafts of materials were developed. The State Studies Reviewers and Resource Consultants were individuals with content expertise whose input was sought as needed. The Curriculum Specialist and Consultants were individuals with expertise in the area of curriculum development whose input was also sought as needed. The Director organized and managed the work of these last three groups.

The Project Planning Council (P.P.C.) provided the structure for interagency cooperation and "a forum for communication" (1978-79 Evaluation Report, p. 33). The P.P.C. included the Director, teachers, a principal, local elementary supervisor, state elementary and social studies supervisors, the curriculum specialist, and the evaluators as ex-officios. Two professionals joined the Council during 1979 and 1980, the first was a university social studies educator, the second had expertise in secondary education.

Through a process of mutual goal setting and decision making, the P.P.C. 'clarified and reaffirmed' the project goals and facilitated interagency cooperation (1978-79 Evaluation Report, p. 55)

The achievements of this 1978-79 Planning phase included: 1) the selection of a director, 2) the establishment of the P.P.C., 3) the evolution of a realistic curriculum development cycle and time frame, and 4) the establishment of cooperation of state agencies in developing materials. Three basic decisions were made:

> First, the project would develop both fourth and seventh grade basal state-studies curriculums. Second, teachers would design, write and field test the state studies curriculums with the assistance of scholars and educators and the resources of public and private organizations. Third, an interagency model of curriculum development and continuous planning would be implemented. (1978-79 Evaluation Report, p. 105).

Perhaps the major achievement of the first year was a clearer definition of goals with a plan for implementing those goals; underlying this was the recognition of the enormous and complex task of developing a basal curriculum.

Phase II Continuous Planning and Development, 1979-80

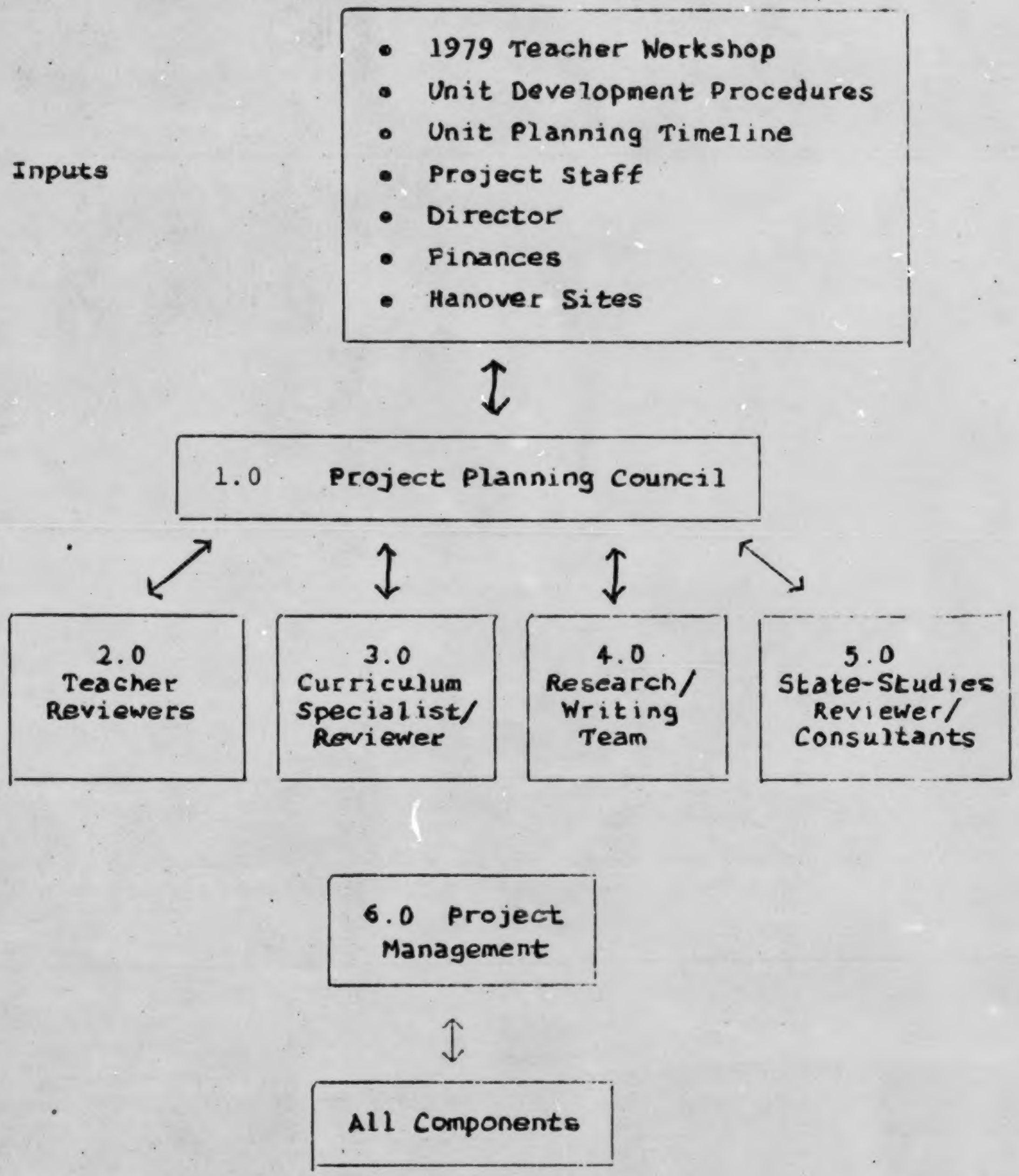
The project was to enter Phase II: Development, with a larger project staff, a procedure for unit development (see Appendix), content guidelines for two units (Indian and Geography) and a Director who had experience with curriculum development, interagency cooperation, and public policy curriculum issues. The larger project staff included a full-time special assistant, and numerous part-time staff and consultants.

This Development Phase would involve the same components as Phase I, i.e., the P.P.C., teachers, reviewers and consultants, but the roles of the members of these components would change.

Insert Figure 3 here
Overview of Phase II

As Figure 3 indicates the desired outcomes for the 1979-80 Development year included: a) the development of four fourth grade units, the piloting

Overview of Phase II: Continuous Planning and Development



Outcomes:

1. Four units at fourth grade level completed
    - all piloted at local level
    - two piloted at state level
2. Contracted out two seventh grade units

Figure 3

of all of these units at the local level, the piloting of two units at the state level, and b) the 'contracting out' of two seventh grade units.

During Phase I the benefits and constraints of using teachers to help develop basal materials had been recognized. Teachers could devote themselves fully to the project only during summer months and teachers themselves raised the issue of their expertise in content areas and curriculum development. Thus, two approaches to unit development listed above were planned. Teachers would, through a second 1979 workshop, continue to develop fourth grade materials; scholars would plan and develop an initial draft of seventh grade materials.

Evaluation Design and Methodology

The evaluation design for Phase I matched the project goals for that year. The goal of Phase I was to plan for the process of curriculum development. The appropriate design for a process evaluation is ethnography. The rationale for use of this methodology which provided for the gathering of descriptive data to document the planning process is fully discussed in the 1978-79 Evaluation Report (pp. 7-17).

Phase II of the Commonwealth Studies Project was to involve actual material development and field testing. Process evaluation was still needed to document and clarify the curriculum development procedures. Also needed, however, was a more objective evaluation component to provide for the assessment of materials developed.

Four approaches would be used to evaluate piloted materials: a) student and teacher questionnaires containing both closed and open ended questions, b) follow-up interviews with local teachers, c) observation at local piloting sites and d) a readability analysis of the units.

Questionnaires were to provide feedback on the desired characteristics. usability and teachability of the Virginia Studies units. In addition, questionnaires would solicit teacher feedback to facilitate revision. This type of survey approach is appropriate where information on specific characteristics are needed as Wiersma explains in his book Research Methods in Education. (p. 6)

The use of a questionnaire alone, however, somewhat limits the understanding of 'why' the respondents answer as they do. Therefore, indepth follow-up interviews at the local level were planned to provide an opportunity to clarify feedback received from the questionnaires.

Observations of class use of the Commonwealth Studies units were also planned to gain more insight into the potential and problems involved in the use of these materials. As Corini in Observation and Description (1975) explains:

> A long tradition in western thought holds that before it is possible, let alone desirable, to abstract and isolate the elements of a phenomenon according to the principle of logic, we must first conduct an inquiry that brings us closer to the phenomenon . . . in all its complexity (p. 5).

The goal in observation is not only to 'come closer' to the phenomenon in a material context but to encourage evaluators to 'subjectively analyze' what is observed.

As Patton noted in Alternative Evaluation Research Paradigm, (1975) "a positive view of subjectivity--getting close to and involved with the data--makes it possible for evaluation researchers to take into account their personal insights. . ." (p. 23). Patton goes on to clarify that this does not lessen the value of objective data but that it "is to recognize that science is really nothing if it is not the application of critical intelligence to critical problems." (p. 23).

Observation also facilitated considering the difficult-to-measure goals. The continually restated goal of the development of the Commonwealth Studies Project was the desire for children to know and appreciate their state. 'Appreciation' is a difficult thing to measure objectively and as Almy explains, observation would be unnecessary "if education consisted of nothing more than the acquisition of facts to be reproduced upon demand, and if all children learned in the same ways (p. 2)."

The assessment of readability was undertaken to determine information on usability. Specifically, developers wanted to know if children could, with ease, read and learn from materials. Readability formulas (see Chapter VI) and teacher and student feedback were used to assess the appropriateness of the reading difficulty of materials.

Each approach to evaluation: interview, observation and questionnaire would provide different types of information. Moreover, results of each type of evaluation could be used to establish the validity of the feedback.

Data collection was initiated for the 1979-80 Planning Year during the June 23, 1979 summer workshop and continued through July, 1980. Evaluators attended all meetings of the P.P.C. and met informally with the Director, Special Assistant, Curriculum Specialist and several Virginia State Department (VDE) spokespersons to discuss various aspects of the project. Field notes on these meetings, planning memos, state studies materials, teacher observation and interviewer field notes, teacher and student questionnaires and readability tests form the data base for this report.

Overview

This report is organized as follows. Chapter Two analyses inter-agency cooperation in development and piloting. Chapter Three discusses the curriculum development procedures and related major decisions, Chapter Four presents the process and results of local piloting, Chapter Five analyses the results of the state piloting, Chapter Six documents the procedures used to determine the readability of two units and Chapter Seven provides a summary of these project activites and achievements during the 1979-80 Production year.

Chapter II

Interagency Cooperation: Development and Piloting

In a project to produce basal fourth and seventh grade Virginia studies to meet a state curriculum need, many activities depend on interagency cooperation. During the second project year, the Commonwealth Studies project moved into Phase II: Development and Piloting of the materials. Cooperation from local school divisions, state agencies, the Virginia Department of Education, and universities continued from Phase I: Planning. Cooperation took many forms: 1) reviews of the fourth grade units for revision purposes, 2) mass production of the print and multimedia materials for each unit, 3) beginning development of the animated film, 4) dissemination, 5) advice and planning by the Project Planning Council, 6) provision of pilot sites for field testing of the units, and 7) agreements to develop the content for the seventh grade units.

As the project focus changed from Phase I: Planning to Phase II: Development and Piloting, more realistic delineation of curriculum development and mass production processes were determined. By continually monitoring these processes, other external influences on the project, and the time and financial constraints of the project, necessary revisions were made in the scope of the project and to a lesser extent the nature of the materials.

Phase II: Beginnings

Phase II of the project began with additional full-time project staff from the local school division. A member of the Project Planning

Council with background in journalism and teaching of reading, was appointed as a full time Special Assistant. Although the Special Assistant had many responsibilities, her main role was to write and revise the fourth grade curriculum materials. Other part-time staff continued to work on special assignments. In December, a second staff member was added to the project to work on the design and content of the animated film, assist in the layout of the units and help in curriculum revision. Although he continued teaching, his project hours resembled the equivalent for a three-quarters time staff member. Both of these staff members worked many hours beyond that which the project was able to compensate them.

Phase II of the project also began with the "core" materials for two of the fourth grade units. The Project Director's letter of July 20, 1979, notes this important accomplishment.

> It has been a productive summer! The summer workshop ended July 6, 1979. Twelve teachers from seven school divisions worked diligently to produce core materials for two fourth-grade units: "Industry and Agriculture in Virginia" and "Indians of Virginia."
>
> We are now in the process of exploring ways of creating suggested teaching tools, doing necessary additional research, and making workshop materials appropriate for the fourth-grade student and teacher. The Curriculum Specialist and I were pleased with the results from the workshop since many of our goals were met. Although the materials from the workshop require revision and additions, we believe the teachers did produce a significant amount of quality materials for the Project. 7/20

The Curriculum Specialist and the Project Director shared their assessment of the progress of the summer workshop at the Project Planning Council meeting of August 20, 1979. In addition, the next steps were noted for curriculum development.

OBS: The Curriculum Specialist summarized the workshop of June-July, 1979 by stating "we accomplished a whole lot, maybe not as much as we wanted to. We saw the decisions and the time required." He shared the issues which arose from the process. The lesson plan formate which became the "Reporting Model" had to be explained in terms of how it worked in curriculum development. Most of the materials followed this model so there is some consistency. Other issues were how to divide up the content, how to handle teacher materials and how this differed from student materials. An issue not resolved but recognized as needed was a conceptual basis or themes for all materials. The three themes are change/stability, interdependence, and tradition. Other concepts were added-environment, culture. These other concepts were for individual lessons but the lessons did not tend to develop the concepts. A list was made from the VDE Guideline for skill development and skills were used in appropriate lessons but they have not a) set up a matrix to see if all skills are in the lessons and then modify the materials or b) assessed if there is a sequential development of skills. He said "I think the materials are good, very good. But, they need a lot of work." Future curriculum decisions will come from the outside reviewers whenever they are brought in and piloting will show teacher usability. The Curriculum Specialist said, "I'm concerned about the conceptual base. We made decisions. There is not much inquiry skills in places where Taba inquiry could do very well. But will teachers use it?"

The VDE liaison said some teachers will. In addition the new forms of SRA tests stress conceptual and inquiry skills and are at a higher cognitive level. Some fear the student scores will drop if the new forms of SRA are used. The old forms of SRA stress knowledge and recall and these scores have been increasing in fourth grade. The VDE liaison said "I would like both knowledge and inquiry so teachers have an option." 8/20

Sequencing of Production Tasks

The complexity of sequencing the curriculum development steps and the production schedules to provide sufficient time for piloting the units and final revision by the project staff was a demanding task. When one part of the process was delayed by events beyond the control of the project, other completion dates in the process had to be changed. The management process was cyclic: planning, making arrangements, monitoring, revising schedules and re-planning. The initial schedule was announced at the Project Planning Council of August 20, 1979.

> OBS: The Council was briefly updated on project events: the current slide-type: the Preliminary Draft of the Unit titles and sub-topics with some title changes, and a paper "Unit Development Procedures" which summarized the entire process from defining topics in Units to Piloting and Revision in twenty steps. Schedules (PERT charts) of the development cycle were also summarized. The units "Indians of Virginia" and "Geography and Resources of Virginia" are scheduled for County piloting and revision from October, 1979-January, 1980 and Commonwealth Piloting from February through May, 1980. The units Jamestown and Virginia's Revolutionary Experience are scheduled for county piloting and revision from April through July, 1980, and Commonwealth piloting from September through January, 1981. The seventh grade units are planned (not yet confirmed) for Slavery to be done by Virginia State University; the economic and government units by Mary Washington College and Life Styles by the project personnel. The slavery unit and economics and government unit are scheduled for production by April, 1980 with county piloting and revision by December, 1980; the last unit is scheduled for production in Summer 1980. There was no discussion about the realistic aspects of these target dates. 8/20

The unit "Indians of Virginia" was mass produced for the local piloting in five classrooms. Piloting occured from October, 1979 through January, 1980. The "Geography and Resources of Virginia" was a much longer and more complex unit to develop and to print. The 200 page booklet contained 75 photographs and sketches, 33 maps, 10 charts and graphs and 3 diagramatic drawings. The teachers' guide would probably be 100 pages. The printing of enough booklets for state piloting at nine sites and for local piloting in five classrooms took longer than expected. A revised schedule for printing was made on January 10, 1980.

Grade 4 Deadline Schedule

January 10, 1980

I. Unit: Geography and Resources of Virginia

Pilot Edition to Printer - December 24, 1979

Final Edition to Printer - August 15, 1980

II. Unit: Indians of Virginia

Pilot Edition to Printer - February 15, 1980
(Second Revision)

Final Edition to Printer - November 10, 1980

III. Unit: Jamestown, Colonial Life, and Living on the Frontier

Pilot Edition to Printer - March 17, 1980

Final Edition to Printer - December 22, 1980

IV. Unit: Virginia's Revolutionary Era

Pilot Edition to Printer - May 11, 1980

Final Edition to Printer - February 16, 1981

Perhaps the interrelationship of each sequential step from development to printing to piloting can best be demonstrated by a series of letters to the Project Planning Council. The close monitoring of the Project Director is demonstrated and the necessity for schedule revisions.

> The booklet on the Geography and Resources of Virginia will be delivered to the printer on Wednesday, December 19, 1979. The booklets will be delivered to the local piloting schools during the week of January 21-25. Copies will be mailed to P.P.C. members and others as soon as they have been printed. I am very optimistic about the potential useability of this booklet. 12/14
>
> The booklet on the Geography and Resources of Virginia will be field tested February-June, locally, and March-June in selected state school systems. Due to the teaching time required and other scheduling factors, the booklet on the Indians of Virginia will be field tested on the state level next September, rather than in the second semester of this year. 1/14
>
> I spoke to the printer on the 17th of January concerning the delivery date for the book, Geography and Resources of Virginia. Due to several problems on their end, delivery has been delayed until the week of January 28th. However, the printer assured me that enough books could be completed for the members of the Virginia State Board for the January 25th meeting. 1/22

Simultaneously, the "walk-on" map of Virginia and the "desk-sized" map of Virginia were in production. Both were essential to the "Geography and Resources of Virginia" unit. Other multi-media materials were in production processes also. The Director's letters note this.

> We are progressing with the "walk-on" map of Virginia including the reverse side which will show portions of Alexandria, Richmond, Norfolk and Roanoke with a street map superimposed on the aerial photographs. A desk-sized map of Virginia is at the printers now. I anticipate the processing and printing will be completed on these maps by late December or early January. 11/6

> The "walk-on" map of Virginia (4' x 8') is now in production. I anticipate completion in late January or early February. The fourth **grade** "desk-sized" map of Virginia may be completed during this same time period. Both maps will enter local piloting as soon as they are received. Reactions to production samples of the maps have been very encouraging. 12/14
>
> The floor map of Virginia and the accompanying fourth grade desk-size maps have been completed. These maps will be in our storage by January 18. 1/14
>
> The Division of Mineral Resources is continuing with their plans to create rock and mineral sample kits, which the Project will purchase in 1980. We will provide learning activities with the rock and mineral samples. 11/6

The final fourth grade "Deadline Schedule" was made after discussion with the Project Planning Council regarding the feasibility of completing two separate units. The revised schedule reflects the time constraints, the financial limitations of the project; and the need to maintain the chronological scope of 1609-1850 in the fourth grade curriculum.

Grade 4 Deadline Schedule

April 22, 1980

I. Unit: Geography and Resources of Virginia

Pilot Edition to Printer - December 24, 1979

Final Edition to Printer - August 31, 1980

II. Unit: Indians of Virginia

Pilot Edition to Printer - April 15, 1980 (Second Revision)

Final Edition to Printer - November 10, 1980

III. Unit: From Colony to Commonwealth (1607-1850)

Pilot Edition to Printer - July 1, 1980

Final Edition to Printer - January 10, 1981

Planning the Pilot Testing

Production schedule revisions required local and state pilot testing schedule revision. The "Indians of Virginia" were piloted locally in fall of 1979. The "Geography and Resources of Virginia" were piloted locally at nine state sites in the spring of 1980. Final revision of this unit will be sent to the printers by November, 1980. The combined unit "From Colony to Commonwealth (1607-1850)" will be developed in the spring and summer of 1980. State piloting will be expanded in fall, 1980, to sixteen sites. Six sites will pilot the Indian unit and eight sites will pilot the history unit in September and October, 1980. This will allow sufficient time to have the pilot test results available by November so that revision and final printing can be completed in the third project year.

The Project Director was successful in obtaining a representative group of pilot sites for the field testing of the units. A Supervisor of Testing of the Division of Research, Evaluation and Testing of the Virginia Department of Education suggested 10 sites representative of Virginia by student enrollment, urban-suburban-city, social-economic status, and geographic location. All but one of the pilot sites were on the "first choice list." Others added for the third year piloting were from the alternative list or volunteered. The selection and arranging for the pilot sites took about six months. The Project Director visited each pilot teacher to clarify the importance of the piloting and the suggestions the teacher could make for revision of the materials. The Project Director reported to the Project Planning Council their arrangements.

> The piloting divisions were those on the first choice list except one which a VDE Testing Supervisor stated would be representative of the Virginia divisions. The Project Director has talked with each pilot teacher and informed them that for evaluation purposes, the project would appreciate: a) completion of a 3-4 page survey, b) optional student evaluation form of one page, and c) written comments on the teacher guide with notations of any innovations which worked for their students. Teachers were encouraged to send the booklets home and if they received any parent comments, to note these. The Project Director's approach was one of volunteering to provide revision information. However, the Project Director was pleased with the teachers selected and expects all the teachers will fully cooperate in providing feedback. 2/29

The purpose of the local and state piloting was also clarified at the Project Planning Council meetings. One purpose was to determine the "teachability" of the units. A second purpose developed later, was to determine the reading level of the materials.

> Several Council members commented on the proposed piloting questions. It was suggested that the kind of "feedback" teachers could best provide would be regarding "teachability" and not the conceptual framework. The fundamental decisions about the curriculum framework could be questioned or made by the Council and the reviewers. Teachers could provide more reliable information about which activities were most useful, which ones were difficult and why, what could make the lesson more interesting, and what were the over-all reactions, both positive and negative, to teaching the lesson or the entire unit. 8/20/79

> Readability analysis results were presented by VDE spokesman. Using the Fry readability formula on a random sample of paragraphs from the Indian and Geography units, the results were that both units were written at fourth grade level. However the Indian unit was more toward third grade reading level. It was suggested that the Cloze procedure be used during piloting of the units which will yield a measure of a) independent level, b) instructional level, and c) frustration level. 2/29/80

Dissemination

During Phase II of the project, dissemination activities by the Project Director increased. In a project planned to meet a state curriculum need, it was important to inform concerned groups of the progress made and the nature of the materials being developed. The Project Director explained the project at the Virginia Consortium of Social Studies Supervisors and College Educators fall meeting, sent a progress report to the Associate Director of the Social Studies Service of the Virginia Department of Education, met with the Assistant Superintendent for Curriculum and Instruction and with other project staff, made a presentation-demonstration at the January State Board of Education meeting.

The most widely disseminated information was the brochure "The Virginia Studies Program" which was distributed to State Board members, each school division of the state, appropriate Department of Education personnel, government agencies and many others. A joint letter was sent from the Title IV-C office and the Project Director to accompany the brochure.

The brochure stated that "The Commonwealth Studies Project was organized to design, produce and distribute Virginia-related instructional materials to each public school division in the state. The materials are flexible multi-media communications designed for fourth and seventh grade students. . . The fourth grade program is designed for a full year, the seventh is intended for one-half year. On both levels, the content stresses the history of Virginia, but also includes Virginia's geography, resources, industries, government, economics, and cultural growth. All of the materials incorporate various learning and teaching techniques, and will aid the student in the process of acquiring knowledge, and developing skills and positive attitudes."

"Each program will contain:

1. Textual materials for students (classroom set, separate booklet per unit)
2. Filmstrips, audio cassettes
3. An animated film
4. Maps: raised relief (classroom set for 7th grade), walk-on Virginia activity map (4th grade), additional maps in different scales with activities
5. Teacher's guide
6. Color photos of Virginia-born presidents
7. State flag
8. Posters
9. Mineral sample kit
10. Agricultural product sample kit
11. Historic artifact samples
12. Simulation games and exercises
13. Field trip guide
14. Local community studies guide
15. Evaluation guide
16. Packaging for the kit"

The brochure continued by stating that the "project embraces the combined efforts of teachers, principals, administrators, and supervisors. Educators represented seven school divisions and seven colleges and universities have been directly involved in piloting and reviewing draft materials. Over ten agencies of the state government are assisting the project, including the State Department of Education. Service from Virginia's publishers and industries completes the list of contributions to the project." The brochure also stated the ultimate project goal: "A minimum distribution of one free fourth grade kit and one free seventh grade kit to each public school division in Virginia is scheduled for 1981.. Inservice is planned and additional kits will be submitted for state-wide adoption in 1985, or sooner if a special interim adoption is scheduled."

Further, the "project materials are correlated to:

> "A Framework For the Social Studies Program in Virginia, K-12, 1979. (current draft) State Department of Education.
>
> Criteria For the Evaluation of Instructional Materials-Social Studies, 1978. State Department of Education.
>
> Standards for Accrediting Schools in Virginia, 1978. State Department of Education.
>
> Basic Learning Skills Testing Program, 1979. State Department of Education.
>
> S.R.A. Achievement Test Battery, Social Studies Section (all skill areas in old and new forms)
>
> "House Joint Resolution No. 60: A Report to the Governor and the General Assembly," 1979, State Department of Education. (preliminary information on recommendations for grade placement, format, content, development strategies as indicated at public hearings).
>
> Minimum Citizenship Competency Programs as designed by local school divisions. Seventh grade government, history, and consumer materials are found in most local competency programs."

The P.P.C.: Curriculum Conceptions and Development Plans

During Phase II, the Project Planning Council (P.P.C.) met on August 20, 1979, and February 20, 1980. The Project Director's letters kept the Council members informed throughout the year. In addition, the Council met with the Title IV-C Evaluation Team on **May 12, 1980**.

The membership of the Project Planning Council remained the same with two exceptions. The local division was now represented by the division Social Studies supervisor and a new member was added, a Professor and Head, Department of Secondary Education and School Management, Norfolk State University. Plans were made to add a spokesman from the Parent Teachers Association.

The P.P.C. meetings were well organized. The tone of the meetings was one of information sharing and discussion. On selected topics, discussion and advice was requested by the Project Director.

Several issues emerged in the P.P.C. and the changing conceptions of the curriculum were reflected in the P.P.C. discussions. Pertinent information regarding curriculum issues was shared by the Virginia Department of Education liason. The field notes demonstrate the concern to maintain the relevancy of the curriculum to state needs and the changing function of the P.P.C.

> The VDE Liason summarized the preliminary 30 page summary of the state study conducted at the request of the State legislature. It is the first comprehensive survey on Virginia studies and social studies. The study showed a desire for a text with multi-media aids, with an emphasis, in rank order, of history, government, geography and economics to be done by state educators first with other choices as text book companies. The preliminary recommendations are that the VDE continue to do what it already does, to suggest support of federal funds for basal materials, examine alternative sources of funding for needed supplementary materials and that there was no need for legislation except possibly for the range of hours for social studies instruction in public schools. 8/20
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> It was a busy meeting with a brief summary of progress to date since the last P.P.C. meeting was in late May. The group seemed to now easily focus on the task with a clearer understanding of the task and a willingness to share concerns. All fronts are being approached at once: curriculum development, agencies contacted, dissemination, state trends, and piloting--evaluation. For the first time two other project staff joined the group.
>
> No firm decisions were made as awareness and identification of issues and future tasks seemed to be the main focus. All of the P.P.C. seemed to recognize what a tremendous accomplishment it was to have in hand the first draft of the Indian unit and part of the Geography unit. Thus, after one year of the project, a tangible product was developed and the curriculum development process was becoming more explicit. 8/20

One of the issues discussed was the effect of spiraling costs on the project and the materials. Printing costs had increased dramatically due to inflation and to the increasing length of the units in terms of printed pages. The costs partially reflect a change in the nature of the materials or conceptions of the curriculum. The field notes capture these changes.

> The last information presented by the Project Director related to spiraling costs of reproducing the units. The costs, partially due to inflation, may force curtailment of some envisioned aspects of the units. In addition, if the goal is to provide one fourth grade and one seventh grade curriculum to each school division, the mechanism has to be developed. If a division wants to purchase additional copies, this mechanism must also be developed.
>
> The Director stated where the cost might affect the nature of the curriculum. He said, "the written materials are getting to be the core of the materials" and therefore some multi-media materials will not be as important as previously thought. He also said, "If something has to go, I don't want it to be at the expense of the print materials--the core." He would like to go to type-set on the final production of the materials. He said the project will be funded for $90,000 for the third year and he is negotiating the possibility of more money the fourth year and means to set up purchasing mechanisms.
>
> A VDE spokesman asked what would be cut, using the list on the last page of the agenda and the project brochure. The mineral kit will be for the seventh grade but not the fourth; the historical artifacts and the photo-slide-tape of Virginia born presidents will not be done. The field trip guide will be done by the project staff if possible. The local community studies guide will not be so much a guide as a series of activities and questions. 2/29

Costs and other factors such as limited resources and time frame seem to influence a second curriculum decision--to produce three units for each grade level instead of the originally planned four units. The discussion is described in the field notes and implications are noted in the Interpretative Asides.

The group then broke for lunch and readjourned after lunch. The focus of the meeting after lunch was more on two issues and seeking specific advice from the P.P.C.

The first issue was one of combining the third and fourth units of the fourth grade into one unit. This suggestion is partially due to the realization of financial and time constraints. The group identified the "pros" and "cons." Advantages to combining the two units were: a) it reduces production costs; b) with the other two units, students can obtain a 'sense of accomplishment;' c) with the other two units, instructional flexibility can be allowed for since not all teachers teach Virginia history five days a week and the units could be used on different grade levels; and d) it is easier to sequence knowledge and skills.

Disadvantages cited were: a) if units three and four were combined, the public might label it as "history" and that this one unit is "the" Virginia studies curriculum; b) it narrows instructional flexibility; c) it would be a lengthy unit and therefore teachers lose some freedom in pacing instruction; and d) it might give the image that Virginia history stopped with the 1850's.

OBS: Both VDE spokesmen wanted four separate booklets at the fourth grade but the Project Director is concerned that there is not sufficient money. The response was "get more money." However, the Project Director will have to negotiate this since Title IV-C also has its financial limitations and procedural guidelines.

(OBS: Several issues emerged from this meeting which have been discussed periodically in all the P.P.C. meetings.)

One issue is the evolving nature of the curriculum. More frequently and obviously the project staff refer to the curriculum as "booklets," "book," "print materials." The Project Director stated that the financial constraints should not endanger the print materials which were "the core" of the curriculum. Initially, the print materials were to supplement the multi-media materials, but now it seems the multi-media activities are to supplement the print materials. This may also be due to an increasing need to demonstrate sequential skill development in the curriculum because of the changing educational state milieu which emphasizes competency testing in all curriculum areas and competency testing on skills. The attempt to use multi-media activities as an important aspect of the curriculum and to provide an interdisciplinary curriculum

> (i.e., more than history) apparently must be "slipped in" unobstrusively in order to get the curriculum accepted widely. This changing emphasis has not gone by without challenge by one VDE spokesman but apparently the financial/time constraints and the state educational ethos are overriding concerns.
>
> Related to this issue is the one of the role of in-service training. In-service training was planned in the Project Proposal but as one VDE spokesman stated, in-service training is not sufficient because of teacher turnover. In-service training may mean merely an orientation to the curriculum and not an in-depth in-service training. This approach would require that the materials can "stand alone.") 2/29

With the advice of the P.P.C. and taking other factors into consideration, the decision was made to combine the "historical" units into one booklet for the fourth grade curriculum. By spring of 1980, the direction for the format for the fourth grade and the nature of the curriculum was determined. The comments of the Project Director to the Title IV Evaluation Team reflected this. The Interpretative Asides speculates on the causes and the impact on the materials.

> The Project Director informed the group that there would be three units at the fourth grade and the status of each unit. The Indians of Virginia had been piloted locally and revised and should be available soon for the state piloting. The Geography and Resources of Virginia was being piloted both locally and statewide at the moment and will be revised and sent for final printing by November, 1980. The combined units, now called From Colony to Commonwealth (1607-1850) is being developed now and will be piloted statewide in the Fall of 1980. Next fall, eight pilot sites will field test the Indian unit and eight pilot sites will field test the history unit in September and October. This procedure is used in order to have the pilot test results available by November so that revision and final printing will be completed in the third project year. (OBS: This enlarges the number of pilot sites in order to pilot two units at once. The constraints of both limited financial resources and time for revision and final printing have affected the decision to combine two units into one and have effected the pilot testing procedure.

The focus of the piloting is teacher usability of the materials and readability of the materials.

The Project Director continued by stating that the project will distribute one copy of each unit to the 141 school divisions and then give the materials to the Department of Education. It will be the Department's responsibility to find mechanisms for continuous distribution and inservice training. 5/12

The Project Director summarized the changing focus of the materials. The materials are "less of a kit and more of a basal print orientation. There will be three books for each curriculum. However, each curriculum will have some audio-visual materials and many experiencial activities in the lessons. The fourth grade books will have the walk-on map, desk maps, updated films from the Department of Education and an animated film. The seventh grade books will have desk maps and a rock and mineral sample kit." (OBS: basal materials have not come to mean print in constrast to multi-media and to mean book in constrast to pamphlets or booklets.) 5/12

Intepretative Aside

Several decisions have been made since the last P.P.C. meeting. Apparently both curriculums are now to have only three units. The collapsing of the units lessens some of the flexibility but encourages the materials to be used as a basal curriculum.

The focus of the curriculum has definitely changed in the last 12 months. A "kit" is now referred to as books. The emphasis of multi-media has shifted to print materials with selected multi-media instructional aids. The reasons for this shift seem multiple in retrospect. These include 1) the process used for curriculum development, 2) the strong influence of teacher input in contrast to curriculum designers or curriculum specialists, 3) the limited financial resources, 4) the local personnel policies regarding hiring full time project staff, 5) the limited time period to produce well developed materials and 6) outside influences such as the state emphasis on basic skills, competency testing, perceived needs for a book in contrast to multi-media materials.

Yet, the need is so great for well developed materials, the learning theory underlying the materials may not be of primary importance. A "good" teacher can use a book in creative ways and an ordinary teacher at least can stress the content.

> Perhaps the real educational contribution and innovation is in the content--the curricula are interdisciplinary and multi-cultural. In contrast to previous state adoptions, this is a major achievement. 5/12

Interwoven in the discussions and planning for the fourth grade curriculum were concerns about procedures to develop the seventh grade curriculum and the format for the curriculum. These discussions also focused on the "sensitivity" of the slavery-Civil War unit.

> OBS:Progress had been made on getting commitments from scholars to do the seventh grade units. Two scholars at Mary Washington College seem agreeable to doing two units. Dr. Blevins of the VDE will work on the state and local government unit. The slavery unit still has no writers for it. 2/29
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> The second topic on which advice was sought was the procedure and the persons for writing the Slavery unit. It was suggested by one P.P.C. member to use a committee of scholars. The Project Director has talked to school personnel who prefer to see a committee with an editor to provide the unit. The Curriculum Specialist noted that since this strategy means using scholars use to writing for their discipline, more than likely the project staff will have to re-write the unit at seventh grade level with student activities. He suggested the project staff be very explicit in statement of the task to the scholars.
>
> The Project Director summarized the choices: a) use a committee of scholars, b) obtain one person (OBS: this has been explored for almost a year and it doesn't seem possible), c) use the same process as the project used to develop the fourth grade units. One project staff member said the last alternative was not a realistic one. No one on the project staff has the necessary expertise and black scholars need to be involved in order for the unit to be widely accepted.
>
> The P.P.C. concensus was to use a committee approach and specific names were suggested for the committee of scholars. Members of the P.P.C. will make the initial contact and the Project Director will follow it up. The task is a) content to be written by the committee, b) the project staff will rewrite for seventh grade level, and c) the scholar committee will review it for "historical accuracy." 2/29

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>
> The Project Director summarized the plans for the seventh grade units. The unit Virginia State and Local Government will be done by a writer in the Department of Education. The unit Slavery, War, Rebuilding the Old Dominion will be done by a committee of four university scholars, racially diverse from different universities and a media specialist. This was recommended by the Project Planning Committee. This is "the most sensitive unit." The Committee will write the content; the project staff will revise it for grade level activities and readability; and this will be reviewed by the Committee of scholars for historical accuracy. The third and fourth units may be combined as Growth of Virginia's Economy and Living in Virginia Today. Two professors at Mary Washington College will do this unit. 5/12

By May 19, 1980, the writing committees had been appointed and would submit outlines by June 15, 1980. The "Norfolk Committee" consisted of the Dean of the School of Social Science, an Associate Professor, and the Head of Mass Communications at Norfolk State University, an Instructor at Hampton Institute, and an Associate Professor at Virginia Commonwealth University to develop the slavery unit. The Mary Washington College team of an Education Professor and a History Professor will develop the economic and culture unit. There will not be sufficient time for field testing the seventh grade units.

Summary

The Commonwealth Studies Project completed many tasks in Phase II: Development and Piloting to attain the project goal of well developed fourth and seventh grade basal materials to meet a state curriculum need. These will be summarized in terms of a) specific accomplishments, b) maintaining the conceptualization of the curriculum, and c) focusing the scope of the three year project.

1. Specific Accomplishments

The following were specific accomplishments in 1979-80:

a. One full-time Special Assistant and the equivalent of a three-quarters time project staff member joined the Project Director and secretary as the project staff. This provided stability and continuity in the curriculum development process and project activities.

b. The "core" materials for the "Indians of Virginia" and the "Geography and Resources of Virginia" units were developed, mass produced, and piloted in five local classrooms and nine schools representative of the state of Virginia. The Indian unit will be piloted in the state fall, 1980.

c. "Story of Virginia 1607-1850," the last unit for the fourth grade curriculum is in a developmental stage with planned mass production and piloting locally and in the state in fall, 1980.

d. Multi-media materials such as the "walk-on map" and desk maps were produced and piloted. Final selections for other experiencial activities for the fourth and seventh grade units were made. The animated film is in the developmental process.

e. The writing teams for the seventh grade units were appointed and the developmental process established to assure completion by July, 1981. Historical and educational scholars from several universities will develop the content basis for the units and project staff will develop the learning activities and maintain an appropriate reading level.

f. Dissemination of project goals and descriptions of the nature of the materials and the developmental processes, including some of the materials, were disseminated to appropriate state organizations and to all school divisions.

2. Maintained the curriculum conceptualization

As noted in the Project proposal and the goal statement in Phase I: Planning: A Qualitative Description, Analysis and Evaluation, p. 1, 2, the conceptualization of the curriculum to be developed was explicit. Although decisions were made to modify the format of the curriculum in Phase II of the project, the basic curriculum conceptualization appears to have been maintained.

a. The curriculum was intended to serve as basal materials. Basal materials connotates that the print materials are the "core" of the curriculum with multi-media materials and experiencial activities serving as essential but not dominate aspects of the curriculum. Thus the print materials have been expanded and the multi-media materials have decreased, as originally visioned. This change in the format of the curriculum is expected to lead to wider acceptance and classroom usage.

b. The curriculum was intended to develop basic knowledge, skills, concepts and attitudes. Basic knowledge is more evident with the print materials but the student activities are designed to also develop knowledge, skills and attitudes. The application of a skills matrix to the units before final revision should assure a seqeuntial development of skills appropriate for fourth grade social studies. Basic concepts were identified and developed in the materials. Basic knowledge is also demonstrated in the planned chronological period of Virginia history from 1607 to 1850 in the fourth grade. In addition, the content of both the fourth grade and seventh grade curricula is intended to focus on historically significant state achievements and current problems and issues.

e. The curriculum was intended to be adopted to different teaching styles with a minimum of in-service training. Flexibility within each curriculum is provided by separate booklets for each unit and multi-media materials which can be used for different instruction purposes in the various units. While many student activities are required, there are also optional ones. Suggestions for teacher-developed activities are made in each unit. Suggestions have been made to provide directions for teachers who have miminal instructional time for social studies.

f. The curriculum was intended to be developed primarily by educators using the resources of private and public agencies. As noted throughout the evaluation report, extensive input from public and private agencies, educators in school divisions, universities and the Virginia Department of Education has been utilized.

3. Focused the scope of the project

During Phase II of the project the scope has become more clearly focused. The materials are planned to be delivered to the Virginia Department of education for two purposes. The materials will be considered for adoption as approved materials for Virginia schools. A mechanism will be developed to distribute one sample set of the fourth grade and seventh grade materials to each school division. The Virginia Department of Education will be responsible for in-service training activities related to the use and distribution of these materials.

Chapter III

CURRICULUM DEVELOPMENT AND PLANNING

During the 1978-79 planning year, a curriculum development process evolved. This evolution has been documented in the first year report. This year had begun with many questions as the 1978-79 Evaluation Report indicates:

> The unknowns were the needed organizational support for teachers to develop curriculums, the time and staff required, the potential help available from public and private agencies, and the best process of curriculum development to meet the desired goals. (1978-79 Evaluation Report, p. 89)

These questions were answered by some degree by the end of that year. More teacher time than was available for curriculum development was needed, public and private agencies could and did provide meaningful help and the best approach to curriculum development was an open response approach. The first year evaluation report suggests and the 1980 development year confirmed that when materials are developed to meet the needs of "significant others," the dimensions of the materials will be defined as the needs of these "others" are identified. During the first year of the project the curriculum development process evolved through . . . "The decision-by-consensus model which resulted in 'ownership' of curriculum decisions by participants in this curriculum process. This in turn results in the reanalysis of the initial Proposal." (1978-79 Evaluation Report, Chapter III) In 1980 the 'decision-by-consensus model' process was still active and 'participant ownership' still viable. Added to this, however, was an active awareness of and responsiveness to the needs and desires of "significant others," i.e., teachers, administrators, the public, etc.

This chapter will document the impact of state needs and guidelines on curriculum decisions relating to amount of text material, a skills focus and instructional strategies. Time and budget contraints will also be indicated as important factors in the curriculum decision process.

Curriculum Development 1978-79

The Commonwealth Studies Project was proposed as a way to meet the 1978 perceived needs of the potential users. These users were identified as: 1) Division of Elementary Education Supervisors, Social Studies Supervisors, and 2) teachers of fourth and seventh grade social studies (1978-79 Evaluation Report, p. 13). Also, as noted earlier, legislators and professionals in social studies organizations had expressed a need for a Commonwealth Studies Program.

The curriculum development process initially had a material development focus. This curriculum development process then started with the consideration of the nature of these materials and moved toward selection of content, objectives, and instructional strategies.

During the 1978-79 Planning year, basic fourth grade content and the division of that content into appropriate units was tentatively identified.

Curriculum Process and Decisions 1979-80

The Commonwealth Studies Project followed what might be termed a responsive curriculum development model. The Commonwealth Project participants attended to input from teachers, the public, social studies educators and others and adapted plans accordingly. The goal remained constant "to meet the local and state need for dealing with Virginia content for use in grades 4-7." (p 27) The clear goal in curriculum decision-making was to develop materials which would in fact be used, i.e., adopted. Therefore, as will be indicated below, to the extent that budget and time constraints allowed, the overriding consideration in making curriculum decisions appeared to be the needs and desires of potential users.

Therefore, while the 1978-79 curriculum development process may be viewed in terms of stages of curriculum development, it is appropriate to view the 1979-80 process of curriculum development in terms of decisions made in order to make the final Commonwealth Studies Program a usable and attractive option for the required study of Virginia.

Media to Print Decision

In the 1978-79 Proposal list of tentative criteria, it was suggested that the Virginia Studies materials be in a multi-media format (Proposal, p. 29). Specific materials were suggested. In fact, during the 1978-79 Planning year, Virginia Studies were consistantly referred to as "the kit" or as "the materials."

At the end of the 1978-79 Planning year there was a clear and strong preference by several project participants for having print materials for teachers and children. This print preference reinforced by similar feedback from public hearings on House Joint Resolution #60 seems then to have been resulted from multiple considerations: a) the realization that some teachers prefer and are more experienced in using print or text materials, b) the need to provide teachers with background information on Virginia, c) the larger community, state and national "back to basics" movement, d) input from the public sector, and finally e) the perceptions of the teachers in the summer 1978 workshop of how to accommodate the first three issues in relation to teacher ideas of the best way to insure learning of designated objectives and content. (1978-79 Evaluation Report, p. 85).

A Responsive Curriculum Development Orientation

However, while a print-orientation was developing, these print materials were still to be only part of the total program. Thus, at the first P.P.C. meeting in August a tentative list of materials for the 'kit' was presented by the Director. The list was fairly extensive, including for example, filmstrips, maps, a state flag and a mineral kit (8/20/79). The relative emphasis on materials and print was clarified at this meeting by the Director who discussed a progress report sent to the State Department:

> The director read sections of the progress report which state that the decision had been finalized this summer to have student textual materials for each of the fourth and seventh grade units. In this memo he explained that 'the confirmation for this suggestion came from what I heard at the public hearings on the General Assembly Resolution and from the recommendations by the teachers who attended our summer workshops.' The SEA liaison had earlier updated P.P.C. members on the course of HJR #60 in which Virginia legislature had opened an inquiry into what was being done and what was needed in Virginia to teach Virginia history. Public hearings had been

> held and as the SEA liaison explained hearings had been held around the state and teachers and administrators feeling on needs assessed. The results indicated that a sample of high school teachers, principals, superintendents, and a social studies educator desired first films, then textbooks, then curriculum guides. The public expressing their views at the hearings wanted textbooks. The director concluded the discussion stating 'In summary the decision for reading material . . . is to meet needs . . .' 8/20/79

Cost was briefly discussed by P.P.C. members and the difference in the rough estimates of cost per class for texts was given as two or three hundred dollars per class, for a 'kit' four to five hundred dollars per class.

. It appeared, however, that the decision for text was primarily to meet stated needs. Texts, as one P.P.C. member noted was wanted and 'would sell.' Thus as input from outside sources was constantly and publicly being more clearly defined, the impact of this input on the nature of the materials also became more pervasive and defined. This approach is not simply a reflection of a local responsive approach to social studies curriculum development but as FitzGerald in her New Yorker (1979) article noted "today texts are . . . inside out as it were, beginning with public demand and ending with the historian." (p. 77)

This was to be expected, and the impact was not unusual as noted in the 1978-79 Evaluation Report:

> The reason that a curriculum does not develop in a clear sequential and rationale manner is partly because "significant others" have to be accommodated and partly because goals inevitably change as project progress." (p. 60)

The Commonwealth Studies materials began with public demand so it followed that the 'public' was to play a vital role.

The text orientation continued through the 1979-80 year as the "kit" became "the units." The Director in an informal meeting explained that "it had always been assumed we would have written materials, it was the amount and format that was in question." This question of how much text and in what format was rapidly being answered. The amount would be great, the format would be a bound text with supplementary materials. The desire for this was confirmed by teacher interviews conducted by one evaluator.

> The teachers were asked if more media were desired. Several teachers explained that children had shared or created their own materials (rocks, seals, flags, etc.). No additional requests for media materials surfaced. Teachers actually seemed to want more print materials: tests and unit questions. 6/80

By the end of the 1980 Production year, the media list presented at the first P.P.C. meeting had been delimited. The walk-on map, the first media product pursued had been completed. Seventh and fourth grade desk maps were completed. The script and initial artwork for the animated film was ready. Alternative plans for making a mineral kit available indirectly, i.e., not as part of the Commonwealth Studies Project were being considered.

A Cost Effective Curriculum Decision

The desires of project participants to be responsive to expressed needs of potential users could not always be accommodated. Funding constraints also had a strong impact. In fact, although the text orientation discussed above was strongly influenced by the desires of "significant others," financial restraints had in fact required that this be almost an 'either-or' decision. FitzGerald had in her New Yorker (1979) article on social studies texts estimated that it cost about $500,000 to develop a single text. This project with almost half that was attempting to produce not simply a text but text and materials for two grade levels on almost one-half the budget projected for text only, one grade only.

Financial constraints were to have a more direct impact on another decision: number of units. The combining of two of the planned four fourth grade units, Jamestown, Colonial Life and Living on the Frontier and Virginia: Revolutionary Era was discussed through the year and the issue formally put to the P.P.C. in February.

> The Director explained that there were both pros and cons to this. Since school divisions liked the idea of separate books since students tend to have a feeling of accomplishment when they finish a book. Also, he noted, varied curriculum options are used in different schools so that different units might actually be used with different grades. Another disadvantage in combining the units was that to many social studies meant 'history.' There was a danger then that the combined unit might become the book. Further discussions brought out concerns of 1) loss of flexibility, for example to use materials separately in mini-courses, 2) lessening of teacher sharing and 3) the potentially overwhelming physical size of a combined unit. One administrator said, 'whether there is one book or many, teachers will tend to do the same thing with it.' The key argument seemed to be that combining would reduce costs of writing, piloting and binding. As the Director indicated 'down the line the decision may be academic due to budget considerations.' 2/28/80

By June the two units had in fact been combined. As the Director explained, budget considerations dictated the decision.

Skills List/Skills Matrix Decisions

The place of skills in orienting curriculum decisions was influenced by the primary goal that materials were to 'convey content about Virginia.' As emphasized during the Planning year materials were also to help children 'experience' and appreciate Virginia and their Virginia heritage.

The proposal as a tentative criteria had suggested that 'the materials should be such that they can be integrated into the local K-12 Social Studies curriculum scope and sequence' (p. 28). By the time of the first P.P.C. meeting in August, 1979 the greater need to demonstrate a responsiveness to potential users was indicated by the Director's summary handout on materials, explaining that:

> Project materials are correlated to:
>
> A Framework For the Social Studies Program in Virginia, K-12, 1979. (current draft) State Department of Education.
> Criteria For the Evaluation of Instructional Materials-Social Studies, 1978. State Department of Education.
> Standards for Accrediting Schools in Virginia, 1978. State Department of Education.
> Basic Learning Skills Testing Program, 1979. State Department of Education.
> S.R.A. Achievement Test Battery, Social Studies Section (all skill areas in old and new forms).
> "House Joint Resolution No. 60: A Report to the Governor and the General Assembly," 1979, State Department of Education. (preliminary information on recommendations for grade placement, format, content, development strategies as indicated at public hearings.)
> Minimum Citizenship Competency Programs as designed by local school divisions. Seventh grade government, history, and consumer materials are found in most local competency programs. 8/20/79

As interviews of local piloting teachers were to show, teachers were test oriented. They requested unit tests and explained they used tests to help them focus on what skills/content should be stressed.

The actual impact of these multiple guidelines in the material development process varied. Essentially, the Special Assistant who wrote and directed the rewriting of the materials may have clarified the impact of the skill objectives on the curriculum process in her May, 1980 description of the 'birthing of a book' during an outside evaluation team visit. She noted that the process of developing and revising a unit took place in seven steps:

> The themes were submitted by teachers, then the research by content experts took place, writing was done, the SEA liaison edited materials, the curriculum consultant 'watched the skills,' piloting, then revision based on piloting. (OBS: The process described-again stresses the content orientation, although the brevity of the Special Assistants' remarks precluded mentioning that the teachers through workshops, had provided skill lists and objectives, she herself had participated in the development of these lists and the development during the summers of 1978 and 1979. These teacher workshops had been conducted by the Curriculum Consultant. The Curriculum Consultant was very skills conscious and consistently pressed for a skills matrix. I believe the point clearly made was that there was basic awareness of the skills to be taught but that content was uppermost. This was congruent with the project goals. The SEA liaison, who undoubtedly worked on developing the state social studies guidelines must also have 'watched the skills.') 5/80

The content emphasis reaffirmed here in May had been discussed at an informal meeting months earlier:

> The Director and Special Assistant were reacting to the idea of a skills matrix mentioned by the Curriculum Consultant. There was concern about the impact of a skills focus on the original goal 'to learn about Virginia.' One project participant stated that 'content could not be sacrificed to skills,' another commented 'no one ever

> said take the old book off the shelves, skills are weak.' The focus was then on content and the academic integrity of that content. The decision related to meeting the goals of the project and the desires of 'significant others.' 9/79

A format for incorporating skills existed in the form of a list of skills available. The Curriculum Consultant continued to monitor the role of skills in materials. By April 28th, 1980 a 'Preliminary Skills Development Outline' (see Appendix) organizing skills under seven major headings had been developed by a team consisting of the Director, Curriculum Consultant and SEA liaison.

The primacy of content was also reflected in the Unit Development Procedures. These guidelines (see Appendix A) presented by the Director in September, 1979, defined 20 steps in the curriculum development process, starting with a content focus:

Step I - Define topics to include
Step II - Identify and seek feedback from authorities
Step III- Identify content expert
Step IV - Research materials

It is not until step seven that skills concepts, and attitudes are identified. However, as discussed in the 1978-79 Evaluation Report, the Unit Development procedures or what was essentially the curriculum development process did not procede in sequential steps but in a cyclic manner. Skills, concepts and attitudes were listed by teachers in the summer workshop along with themes and instructional strategies. The list of Unit Development Procedures simply clarifies what steps were taken and the priority of these steps. Priority of content was appropriate given the purpose of the curriculum (i.e., to teach about Virginia) and the responsive curriculum process.

Instructional Strategies Decisions

Decisions on instructional strategies can be analyzed by noting the differences in the teacher directions and the 'try this' activities of the first and second drafts of the Indian Unit. In the first draft, teacher guidance on skills and vocabulary is not as extensive as in the second draft. Teacher directions were still open in this first draft and the designated section 'Guiding the Reading and Learning' clearly emphasize providing motivation and background. In the second draft, more teacher guidance is provided and more pedagogically approved approachces suggested. For example, in the section "How do we know about Indians," a familiar and respected approach to guiding reading is used. In this section, children are asked to generate predictions about what this unit will tell them, predictions are to be written on the board and then children are to be asked to read to check their predictions. In another section of the revised Indian Unit (T 30) questions are presented and children are to read to validate these. As Stauffer notes in his book Directing the Reading Thinking Process (1975):

> There is almost unanimous agreement among educators that motivation, set a purpose is a principal determinant of the nature, quantity and quality of achievement. This same truth holds in reading achievement, what the reader does before . . . (reading) largely determines what (is achieved). p. 5

Teacher directions clearly and consistently create a prereading set in the second draft. The follow-up activities are of equal importance, as again Stauffer clarifies; ". . . clear thinking and weighing of ideas during reading as well as after are needed from the earliest grade." The adaptation in the follow-up activities from the first to the second draft of the Indian unit indicates an attempt to meet many criteria discussed in the Proposal and to meet criteria and reaffirmed (or requested) by reviewers, teachers and consultant. Three examples showing attempts to meet these criteria will be discussed here in relation to criteria that material be: a) interdisciplinary, b) indicate a broader perception of social studies skills, values and knowledge and c) focus on the past, present, future orientation. Although each of these characteristics can be found in the first draft, they are more prevalent in the second as the summary review note indicates:

> Draft one of the Indian Unit has many excellent 'hands-on' activities. Hardly a section of 'try-this' activities lacks a hands-on activity. Suggestions for making Indian artifacts, cooking, and dancing are clear and did generate enthusiasm as teacher and student feedback confirm. In the revised unit, these activities remain but added are clear interdisciplinary activities in not only art, but music (create lyrics) (p. 122), biology (safe/poisonous plants, animals, p. 123), archaeology (find discoveries of. . . p. 37); human development activities or value discussion: (What personal qualities. . . makes someone a good leader today,) (p. 45), consider superstitions (p. 36).
>
> The past, present, and future orientation is consistently in the form of provided or suggested by questions or activities. p. 35, 36, 91, 92 and 122.) 6/30/80

The commitment to a flexible approach so materials are useable by teachers with a variety of teaching styles can also be seen in the type of activities provided in the second revision. Questions are provided for practice and independent work, discussion questions are provided as are hands-on follow-up or motivational activities--allowing teachers to select from a variety of strategies.

Summary

The media/text issue had been resolved by the potential users. The Commonwealth Studies Program would be print, actually text-oriented. Two factors then influenced the print-orientation which dominated the second year: 1) teachers and "significant others" wanted this and 2) funding. There would be a media component since initial pedagogical and financial commitment to desk and walk-on maps and an animated introductory film was confirmed. The major portion of content would be conveyed through a student text and teachers' guide.

Chapter IV

LOCAL PILOTING

Piloting at the local level was to provide feedback relating to proposed characteristics of the Virginia Studies Materials and to collect information on teachability and usability which in turn would facilitate revision. The characteristics of the state studies outlined in the Proposal (pp. 27-30) and confirmed or refined during the Planning year (see Phase I-Planning) tend to fall into three overlapping categories relating to 1) content, 2) mode or development and 3) pedagogy.

It was proposed that the content be interdisciplinary, assist in developing basic social studies skills, have scholarly and pedagogical integrity, reflect the cultural pluralism of the Commonwealth, and focus upon historically significant state achievements and current issues. The mode of development was to feature the inclusion of educators (specifically including a large role for classroom teachers), scholars, community-minded private organizations and government agencies. The pedagogy was to reflect multiple teaching and learning styles.

The Need for Feedback

Feedback on content was to be provided by a variety of consultants and interested "significant others." Feedback on mode of curriculum development was to be documented by Evaluators using a process approach to evaluation. The role of teachers in developing these state studies materials is discussed in Chapter III and more extensively in the Phase I-Planning evaluation document.

Pedagogical integrity was to be evaluated by consultants and by piloting the units. Piloting of materials in the schools would overlap with other project activities for evaluating the units. Thus, while teacher piloting input was being collected, feedback from revision would simultaneously be sought from a variety of consultants, P.P.C. members and teachers. The problem of simultaneous collection of the data would, as one P.P.C. member noted make it difficult to build upon input of consultants and others. Time, cost of multiple revision and the need for content experts to view materials as a whole were presented as reasons for a multi-prong approach to evaluation (8/20/79).

While some consultants spoke to all characteristics of the materials, experts in each area (content, development, pedagogy), were identified as reviewers. At the February 28th P.P.C. meeting, the Director submitted a list of 53 individuals who were asked to react to the Geography and Resources of Virginia Unit. Included in this list were P.P.C. members, history and curriculum faculty from universities across Virginia, public school supervisors of instruction, administrators, museum curators, and various Virginia State Department personnel. P.P.C. members were asked to suggest additional reviewers.

> The Special Assistant noted that many of these individuals had in turn asked fellow colleagues and interested parties to review the unit. Not all responded. The feedback received, the Director was later to report (7/80) was helpful and that specialists with expertise in the content areas had provided "significantly helpful input." 2/28/80

Most feedback on pedagogy, especially in reference to teachability and usability was to be provided by field-testing the materials. Piloting here then refers to teachers field testing the Virginia Studies Materials in fourth grade social studies classrooms.

This chapter will focus upon this aspect of piloting by noting the steps taken: a) to establish field test sites, b) to determine information needs, and c) to gather needed information. The results of the data gathered from piloting will also be presented.

Piloting Sites

It was indicated in the proposal (p. 28) that materials were to be field tested. During the first two meetings between evaluators and the Director, field testing was discussed.

> The cost in terms of monies and time of field testing was considered as the overview for the three-year plan was being developed. There was a stated need for field test sites to be representative of the diverse Virginia population, rural, urban, etc. 9/13/78
>
> The fact that Hanover in many ways has areas and populations reflecting the diverse state population was discussed. Discussion revolved around locating areas for initial piloting. It was stressed that this was a state project and wider (i.e., state) field testing would be needed. 9/21/80

The actual designation of local field sites was not made until September, 1979. The Director, at the September P.P.C. meeting stated that cooperation from five local schools and teachers had been obtained for piloting. Local pilot sites would facilitate evaluator observation of use of materials without incurring undue expenses. The Director explained that 'representative classes' had been selected, (i.e., classes with students of varying reading ability). (For sites, see Appendix B)

Goals and Procedures of Local Piloting

The purpose of the piloting had also been discussed in initial planning meetings between the Director, the LEA and SEA liaisons, and evaluators.

> (OBS: There was some discussion about the potential for field testing, i.e., that it could not be more than 'perfunctory.' It was pointed out that field testing could provide more than student and teacher feedback since observations could provide 'information on true insights of teachers' and usable feedback for revision. 9/21/78

The goal in local piloting was reassessed during a September, 1979 meeting of the SEA liaison, Special Assistant, Director, Curriculum Consultant, and evaluators. As the summary field notes below indicate, the goal of local piloting was to provide input for revision:

> It was pointed out that questions providing information to those rewriting was needed. Indepth interviews and observations could provide information on teachability (OBS: and validate information collected on questionnaires). The content had been and would--after revision--again be reviewed by content experts. Piloting was to provide information on use of materials.
>
> The Special Assistant had developed questions for each chapter in the Indian Unit for the piloting teachers. Questions were broad (i.e., on readability, clarity of teacher and child information and directions), and specific (i.e., 'would you like to see subtitles that dictate the end of a lesson.')
>
> The issue of determining 'how much did children learn' was discussed and cost of testing this assessed. Several people explained that time was a factor in not calling for this in the proposal. One member noted that the goal of piloting was to test the teachability and usability of materials, not to test the children. The curriculum consultant concluded the discussion noting "We probably can't get hard data

> . . . but we can get affective responses to "did it work with this child." (OBS: This comment apparently reflecting the consensus of the group.) 9/79

Three procedures for gaining information on teachability and usability at the local level were accepted: 1) observation of classroom use of materials, 2) teacher interviews, and 3) questionnaires. With the "gained information on revision" orientation in mind the evaluator reviewed Proposal criteria relating to teachability and usability. These criteria were used to develop an initial set of questions for a questionnaire which would provide a basis for teacher interviews and observations.

Indian Unit: Teacher Reactions and Suggested Revisions

This local teacher questionnaire focused upon appropriateness of level of concepts, readability, interest, perceived student learning, teaching time, flexibility of use, and the effect on children's appreciation of Virginia.

These questions were reviewed by the Project Director and Special Assistant, adapted and distributed to teachers by the Project Director and one Evaluator on December 6th, 1979. As field notes indicate this personal distribution process was used to encourage teachers to respond openly and critically.

> The Project Director introduced the Evaluator to all teachers and principals (when available) at each school. The teacher's enthusiasm for the materials was already evident. The initial meeting of teachers was not only to distribute questionnaires but to encourage teachers to answer questions critically and not to feel constrained by questions. Stress was placed on the importance of their feedback. This initial informal introduction was also a chance to explain the role of the Evaluator to teachers. (OBS: I pointed out that I would be

> calling to set a time to talk with them and observe. All seemed comfortable with this and at least three of the five said they were 'honored' to be participating in the piloting). 12/6/79

Indian Unit: Piloting and Feedback

The teachers had all received Indian Unit materials by October 22, 1979 and piloted this unit until early 1980. All teachers upon completion of the Indian Unit filled out the questionnaire and all had their students (although this was optional) complete a questionnaire.

The results of this teacher questionnaire (see Appendix) indicated that teachers felt important and appropriate concepts and skills were presented. Teachers agreed that there were no inherent assumptions about children's knowledge. All teachers stated that the materials were interesting and provided children with "a better appreciation of their Virginia heritage."

Responses to the questionnaire indicated that on the average teachers felt background information was sufficient, the unit was adaptable to their teaching style, directions were clear and materials easy to use. Preparation time tended to be 10-30 minutes.

Three teachers indicated that extended explanations were required and three also indicated learning was only 'somewhat enhanced.'

In the follow-up interview these concerns were discussed. Moreover, since the value of the feedback from pilot teachers was the usability of this information for revision, direction for input desired was discussed with writers.

> The value of the feedback on the Indian Unit provided by the questionnaire was discussed briefly with one member of the staff. The staff member explained that while the questionnaire

> feedback was supportive and enthusiastic, it was 'not helpful from the rewriting standpoint.' The writer explained that information helpful for rewriting would provide input on what left the children in confusion, what questions were asked which teachers had no information to answer, how teachers constructed their lessons and what teaching opportunities were passed by. The Special Assistant said some input from from the questionnaire was useful, for example, activities that writers had never 'thought of' had been provided. 2/12/80

Interviews with four teachers were conducted by the evaluator over a three week period in the Spring of 1980. Teachers were asked to a) clarify their rating of the unit, b) respond to questions suggested by the curriculum writers and c) to discuss what children found of interest, d) to indicate changes they would recommend, and e) to discuss overall 'teachability and usability.'

Information gained in the interviews in relation to findings on the questionnaire indicated that the teachers need for 'extended explanations' had to do with a desire for a pronunciation key and glossary. These aids, the teachers noted, were a traditional and desired feature of social studies materials. Teachers recommended some rewriting of children's directions in several of the "try-this" activities.

> (OBS: The teachers requested unit tests to evaluate learning. Tests, one teacher explained, helped provide guidance in selecting important concepts on which facts to emphasize.) It seems the nationwide pressure to test and to view as 'learning' what has been tested is evidence to some degree by teachers. All teachers felt children had 'learned a great deal' but as one teacher said 'learning was still evaluated with tests, without tests the extent of learning was not fixed' and thus evaluation of 'enhanced learning' was reserved or qualified to the 'somewhat' response. 3/80

The Director later explained that this type of feedback was the reason for inclusion of additional evaluative tools in the materials in their present form.

Most teachers felt more time was needed for this unit than was available. This problem related to the Indian unit because children wanted to do all the activities and the unit gave itself to other related activities. The same problem would later surface in the Geography unit in that the content was broad and teachers had problems deciding what to focus upon.

Teachers had some difficulty with the writing team's specific questions--especially questions asking for specifics on what questions children raised. One teacher noted that whatever was of difficulty would have been explained quickly during the lesson. Given the amount of interaction in one lesson she could not think of specifics afterwards. More information on John White and on 'what happened when Indian children did cry' was requested but in general teachers described the material as 'complete.' Detailed input on specific areas needing rewriting was solicited during the interview and teachers stated they would keep this type of question in mind as the piloting continued.

Overall the teachers feedback was open and positive:

> (OBS: Four teachers were interviewed, one teacher was ill the day of the scheduled interview. The initial reaction of all teachers was enthusiastic. Teachers noted that children and parents had provided them with very positive feedback. The parents 'loved it,' children 'wanted to read it all the time,' etc. were typical comments. I was initially concerned that teachers would have difficulty criticizing the unit but they had several broad and specific constructive suggestions. First, all felt the content was excellent

> and that the writing style made reading easy. Most felt material was easy to teach from and stated they tended to 'adapt the teachers manual suggestions to their own style and children's needs.' However, all felt they needed the manual as a point of departure and initial guide. Tests, a glossary, a clear division for lessons, pronunciation keys, more durable binding, a correlation of teacher and pupil pages were typical recommendations. Teachers made great use of the desk maps. One noted she had these out for almost each lesson. 3/80

The feedback from teachers was permeated with their highly favorable comments resulting from the apparent enjoyment they and the children had experienced using the materials.

One way to evaluate the value of the teacher feedback is to compare it with feedback from other sources. The information from pilot teachers differed from that solicited from teachers in a university class who did not teach from the unit. There were differences in quantity and specificity. The non-pilot teacher comments were more specific. Non-pilot teacher comments related to organization, clarity, authenticity, potential need for more information, and related activities. Pilot teachers only tentatively touched upon these areas. This suggests that in teaching from the book, needs that come most quickly to the top are functional and relate to usability. For example, the request for parallel teacher pages.

The non-pilot teacher comments reiterated some of the points made by pilot teachers. These non-pilot reviewers tended to see the excellence of the unit, in terms of "diversification, prodding of imagination, unbiased views." The pilot teacher tended to see the excellence of the unit in terms of the eagerness of the children to learn and work with the materials. One comment by a non-pilot teacher seems to capture the enthusiasm: "This was obviously done by done by someone who understands the needs and interests of children and teaching."

Indian Unit: Student Questionnaires

Teacher's comments during observation conferences again indicated that children 'were proud of the fact that they had been selected to be in the piloting of these materials.' The teachers explained that children 'loved the topic-Indians.' Therefore children's reactions were expected to be highly positive. They were, but chidren also indicated the ability to be critical.

All five teachers in the local pilot schools administered a student questionnaire to their students after completion of the Indian Unit, although this was optional. Teachers later explained that children were impressed that their input had been solicited. Approximately 120 local children responded, a random sample (25), of these questionnaires were analyzed. All children's comments were reviewed by the writers.

Children were asked to respond to five closed and two open questions on the Indian Unit.

Question 1: I enjoyed reading this unit about Indians.

Yes - 21 Somewhat - 4

Question 2: I learned a lot from this unit.

Yes, I learned a lot--	24
I learned a little--	1
No, I didn't learn much--	0

Question 3: I understood what was said as I read the chapters.

Yes, always-9 Yes, mostly-16 No, not most of the time-0

Question 4: Were the activities interesting?

Yes, always-15 Yes, sometimes-10 Never-0

Question 5: Overall, how would you rate the unit?

Great - 17 Good - 8 Not very good - 0

There were no negative ratings.

Children were asked to tell what they liked most about the unit and their comments made it clear that they react more to content than characteristics of the material. Most responded they liked the weapons, 'Indian sigh (sic) language,' or the Indian girls' and similar specific aspects of content presented.

Children's responses to 'what would you like to be different' were also content oriented--with the exception of frequent requests for a glossary. The glossary requests may have been motiviated by the fact that several teachers had children develop their own glossary. Children may have had this 'activity' and other teacher directed activities in mind when they rated activities. The childrens' general positive regard for the unit perceived by teachers and confirmed by evaluators' observation during lessons was reflected in one child's answer to the question "What would you like to be different?" The child (Mike) answered:

"Nothing
Absolutely
nothing
nothing
nothing"

Classroom Observations: Indian Unit

Classroom observations of teaching of the Indian Unit were conducted over a three week period by one evaluator. Four teachers were observed. Following each observation the teachers met with the evaluator to discuss briefly 'how things were going.' All lessons proceded smoothly and consisted largely of reading and discussion of the unit material.

Evaluator observations of teacher directed lessons tended to confirm the later teacher and student feedback, especially rating of the high interest level and readability. There were few children questions during the lessons but many children commented on aspects of Indian life and tended to relate their own experiences to the experiences described in the text. (OBS: It is easy to understand why teachers tended to have little feedback on points of difficulty--discussions are personalized and indirect or direct questions are readily answered. 3/80)

In conclusion, students, teachers and outside reviewers while providing input for revision were overwhelmingly favorable about the materials in the Indian Unit. Requested changes for firmer binding, glossary, balance of teacher pupil pages, more student activities can be seen in the revised Indians of Virginia Unit which will be state piloted for the Fall of 1980.

Piloting of Geography and Resources of Virginia Unit

Teachers were provided with Geography and Resources of Virginia print materials, desk and floor maps in February. Review questions were provided later to teachers. Time constraints dictated the need for concomitant state and local piloting, the local sites alone would be used for teacher interviews. To determine what type of feedback from pilot teachers would be most helpful, interview questions were again informally and briefly discussed with a member of the writing/revision staff. A member of the staff suggested that it would be helpful to know where a chance to introduce skills was missed, where class discussions lead, opportunities to relate information to their own area and especially "what could be cut." 3/12/80 The interview schedule was revised so this information could be solicited.

All five teachers were interviewed on the Geography and Resources of Virginia unit and three geography lessons observed. Since some teacher-evaluator rapport had been established during the earlier interview and observation, a pre-interviewed questionnaire was not needed. Moreover, teachers and children in the local piloting schools were to complete the state questionnaire.

The instructional pattern of teachers observed teaching the Geography and Resources unit differed somewhat from that observed during the Indian unit. The skills orientation of the Geography unit seemed to promote a stress on vocabulary, a repeated practice format, i.e., children would practice locating products on a map, practice locating geographic regions on the map, etc. Teachers, whether using a "practice" or discussion orientation, tended to keep interest high by using the walk-on-map, map in the book or by personalizing discussions. The printed text was referred to, rephrased, but not directly read during observed lessons.

Observations of lessons confirmed that teachers were able to adapt materials to their own teaching styles and needs of children. Summary notes on the observations of both lessons on geography and the Indian unit note this.

> The instructional strategies of the teachers observed during teaching of the units varied. Each teacher had her own distinct style and was aware of how they were adapting teacher directions from the manual. Only one teacher noted she followed the manual exactly. All said they found the manual helpful. Teachers stated that in addition to the observed patterns that they

> used the following sequences: a) general discussion focusing upon concepts in the lesson with follow-up reading assignment, b) introductries of vocabulary, oral reading, outlining chapter on board, lecture to fill in outline, and unit activity, c) motivation, read orally, discuss, give notes (which were rephrasing of chapters) and d) questions answered in previous homework assignment discussed and new questions assigned. It appears teachers are intent upon conveying terms and some study skills. All classrooms had children's work showing participation in suggested projects (making a seal of Virginia, map, etc., (OBS: It is apparent that more of the type of feedback desired by the writing staff seem more relevant to teacher experiences with this unit. For example, extended explanations are often required in relation to skills, and teachers seem more alert to children's knowledge of skills. Children tend to ask questions teachers don't readily have information to answer, like: "Is there a city named Tidewater," teachers field these questions well with a 'let's find out' or 'how can we find out' response.) 5/80

All five teachers were interviewed during the final week of May and first week of June. Feedback was more detailed and extensive than information provided on the Indian unit. The orientation to the types of questions to be asked provided during interviews on the Indian unit, the reorientation following observation of lessons and perhaps the nature of the materials themselves may have contributed to the more extensive comments. Moreover, the Director's interest in "how things were going" in the form of phone calls to see if anything was needed and a brief questionnaire may have prompted teacher awareness of the need for feedback.

The feedback from the interviews included seven major points.

1. Teachers felt children were enthusiastic especially enjoying
    a. 'try-this' activities
    b. information on Virginia symbols, maps and the dismal swamp
    c. information on places they had visited or things they experienced,
    d. brief 'historical' inserts
2. All felt information was presented in excellent steps
3. The glossary was sincerely appreciated
4. All stated children learned map skills, characteristics of land and regions
5. All teachers volunteered that the provided questions (which they would like in list form with answers) were "terrific."
6. All stated that children now do have a "better appreciation of Virginia."
7. Several teachers liked the recent up-to-date information in Virginia.

Many suggestions were provided, including the suggestions that:

1. material be cut
2. vocabulary be put first in child's book
3. more personalization be incorporated as in Indian book-- i.e., story form
4. larger pictures with color be included
5. more ideas for use of floor map be provided
6. an overview of book be provided to direct "selecting of main parts"
7. clarification of intermediate directions, and grid be provided

8. time line revised--a parallel line with child's age or related to time of parents, grandparents, was suggested
9. clarification of occupation chart
10. more "world perspective"

There were some differing views regarding specific content, such as on the life of an oyster. One teacher said, "who cares about the life of an oyster." Another said "children were fascinated with the life of oysters." Generally teachers agreed that the children's backgrounds dictated views on what was more/less important, and that wheat, oysters, coal were remote for most local children.

Teacher comments confirmed one concern the Special Assistant had predicted in September of 1979; and one concern recognized when the Geography and Resource Unit was completed. In September, in discussing the Virginia history, the Special Assistant had suggested that teachers would miss the 'current issues, larger world focus' and on completing the Geography and Resource unit she had recognized that it was too long. Most teachers had difficulty completing the unit although most taught materials five days a week each week for four months. All felt the unit should be cut as noted above there was little agreement on what could be cut. Again, essentially statements of what to cut and keep were based on children and teachers background. Where children had had experience with a region of Virginia or with concepts discussed, they loved that material because they could relate to concepts and contribute to the discussion. While wheat, oysters, and coal were seen as remote by most, one teacher felt these sections should not be cut since they were vital to "knowing Virginia."

Summary

Two units were piloted at the local level during the 1979-80 year. Teacher feedback on the initial Indian unit was not initially extensive. The input provided was welcomed and used in revising the Indian unit. Feedback on the second unit was more extensive. Teacher reaction to both units was highly positive. Teachers rated units as highly usable and teachable. Observations of teacher and student use of these units indicated materials could be adapted to a variety of teaching and learning styles.

Chapter V

STATE PILOT TESTING OF GEOGRAPHY AND RESOURCES OF VIRGINIA: STUDENT AND TEACHER QUESTIONNAIRES

Introduction

The purpose of the state pilot testing of the Geography and Resources of Virginia unit was: 1) to assess if teachers were able to use the materials to enhance student learning, i.e., "teachability and usage" and 2) to obtain information for unit revision and long-range project planning. The pilot testing results included three types of data: readability data analyzed in another Chapter, a brief student questionnaire and an extensive teacher questionnaire. The student questionnaire sought general reactions of pupils to the unit. The teacher questionnaire obtained demographic data concerning teacher experience and the number of hours and weeks used for piloting the unit. The questionnaire asked for teacher perceptions of students reactions and the degree to which the unit developed knowledge, skills and selected concepts. The questionnaire also determined the teacher's reactions to selected aspects of using the materials. Further, the teachers were asked which unit topics could be deleted or expanded and in-service training needs.

State pilot testing occurred from February 15, 1980 to June 1, 1980. Each pilot teacher received a classroom set of the two hundred and twenty-seven page student booklet, thirty desk maps, one walk-on map (8' x 5') and marking pens. The teacher received a Teachers Edition which consisted of seventy-six pages of suggestions for "Guiding the Reading and Learing" and "Optional" activities dispersed throughout a students booklet. For each major topic, the Teachers Edition listed "Skills, "Concepts," "Objectives," and suggestions for "Creating Interest," and "Guiding the Reading and Learning."

Major topics in the Geography and Resources of Virginia unit were: "Let's Explore Virginia," "The Tidewater Region," and "The Mountain and Valley Region." "Let's Explore Virginia" emphasized map skills and symbols of Virginia. Each section on a regional area provided more geographic information, identified the natural resources of the region and described typical occupations, transportation, and economic resources of the area. Throughout the unit were brief narrative stories about selected historical events or personalities, maps and photographs. A glossary was provided at the end of the booklet.

The Project Director held a brief orientation conference with each individual teacher. The purpose of the project and pilot testing the unit was explained. He showed the walk-on-map and made a few suggestions for using it. An overview of the student booklet was given. Teachers were asked to make marginal notes in the Teachers Edition and to send the Edition to the project staff to aid in revision. Teachers were asked to cooperate in obtaining the readability data, student questionnaires, and in completing the teacher questionnaire. Thus, the pilot teachers received more an orientation to the project and the unit than a formal in-service training.

Procedures

Instrumentation

Student and teacher questionnaires were developed by the External Evaluators and reviewed by a panel of experts consisting of the project

Curriculum Specialist, the Project Director and Assistant, and a state department social studies supervisor. After five revisions, the questionnaires were considered to have content validity. The student questionnaire consisted of four closed response items and one open response question. The teacher questionnaire consisted of 4 demographic items, 31 close response items and 18 open response questions.

Pilot Sites

Eleven pilot sites were selected from a list of four cities and eleven counties recommended by a state department of education Supervisor of Testing. The recommended 15 sites were considered representative of Virginia by a) social-economic status, b) racial composition, c) urban-suburban-rural composition, and d) geographic location. Two additional private school sites were added to the original list. The Project Planning Council selected those eleven sites which seemed most representative of Virginia. The Project Director obtained the cooperation of the selected sites.

The following sites participated in the pilot testing: Alexandria City, Newport News City, Norfolk City, Richmond City, Brunswick County, Culpeper County, Hanover County, Spotsylvania County, Westmoreland County, Wise County, and one private academy. Each pilot site had one pilot classroom except Alexandria City provided two pilot classrooms and Hanover County provided five pilot classrooms. The total number of pilot teachers was sixteen.

Data Collection, Analysis and Presentation

The questionnaires were sent to each pilot teacher in May and all data was returned by June 10, 1980. The data were analyzed by frequencies and percentages rounded to the nearest tenth. The data were first categorized, tabulated and then listed in rank order for the open response questions.

A random sample of 5 questionnaires was selected from each of the fifteen pilot classes. One site did not collect student questionnaire data. The total number of student questionnaires analyzed was 75.

The data from the sixteen teacher questionnaires are presented for the entire group. This was necessary to obtain a range of demographic data in student achievement level, teaching experience and length of usage of the unit. Further, this was feasible without distortion of the data. A careful inspection indicated that Hanover teachers made more extended comments and had fewer references to map utilization. However, there was consistent response patterns in the Likert type scale questions among all pilot teachers regardless of geographic location.

Demographic data on the pilot sites will first be presented. This will be followed by student data and teacher data.

Findings

Demographic Data and Unit Usage

General achievement level of students in pilot classroom (check one):

__4__ low achievement

__8__ average achievement

__4__ high achievement

Number of years you have previously taught Virginia studies (check one)

8 none
1 1-2 years
2 3-5 years
5 over 5 years

Average hours per week of instruction usually used for this unit (check one)

____ 1 hour
2 2 hours
8 3 hours
4 4 hours
2 5 hours
____ over 5 hours

Number of weeks of instruction usually used for this unit (check one)

____ 1-3 weeks
1 4-6 weeks
1 7-9 weeks
3 10-12 weeks
8 12-14 weeks
3 over 14 weeks

The Geography and Resources of Virginia unit was piloted with students of a wide range of general achievement levels. One half of the students were perceived by teachers as average achievers, one fourth as low achievers and one fourth as high achievers. The pilot teachers had a wide range of previous experience in teaching Virginia studies. Eigth teachers had no previous teaching experience in Virginia studies and one half of the teachers had taught Virginia studies from one to over five years. Approximately one third of the pilot teachers had taught Virginia studies for over five years.

Half of the pilot teachers used the unit on the average of three hours per week, one quarter used the unit four hours per week and the remainder used the unit either two or five hours per week. The number of weeks used for instruction of the unit varied. Half of the teachers used the unit 12-14 weeks and the remaining teachers used the unit either 10-12 or over 14 weeks.

Student Questionnaires

The student questionnaire obtained general reactions to the unit. The results of the four closed-response questions and the one open-response questions is presented below.

N=75	Yes	Some	No
1. I learned a lot from this unit.	84%	16%	0

N=75	Always	Sometimes	Never
2. This unit was easy for me to read.	51%	49%	0
3. I liked the activities in this unit.	57%	39%	4%
4. I had fun learning from this unit.	71%	25%	4%

5. I felt this unit was:	pretty good/good	34%
	interesting to read	19%
	educational	19%
	fun	17%
	good pictures	5%

Eighty-four percent of the students stated they "learned a lot" from the unit. Fifty-one percent of the students said the unit was "Always" easy to read and forty-nine percent said the unit was "Sometimes" easy to read. Fifty-seven percent of the students "Always" liked the activities of the unit and seventy-one percent of the students "Always" had fun learning from the unit. No student stated he could never read the unit, and only four percent stated they never liked the activities or enjoyed learning. The most frequent remarks about the unit were: pretty good, interesting to read, educational and fun.

Teacher Questionnaire: Perceptions of Student Reactions and Suggestions for Revisions

N = 16

Student Reactions	Always	Usually	Sometimes	Seldom	Not Apply
	PERCENTAGES				
1. Students found this unit interesting	25	63	6	0	6
2. Student increased their basic factual knowledge of this topic	63	31	6	0	0
3. The reading level of the booklet was appropriate for the students.	25	50	25	0	0
4. Students enjoyed the activities of this unit.	57	31	6	6	0
5. The multi-media materials (i.e., materials other than booklet) enhanced student learning.	69	19	6	0	6
6. Students increased their understanding of the following social studies concepts or themes with this unit:					
a. change/stability	12	57	31	0	0
b. interdependence	38	43	19	0	0
c. culture	25	50	19	0	6
d. tradition	32	43	19	0	6
7. Students developed the following social studies skills with this unit:					
a. make and interpret maps and globes	50	50	0	0	0
b. make and interpret charts, graphs, and pictorial materials	57	43	0	0	0
c. chronology and time skills	12	50	32	6	0
d. locate and gather information	25	63	12	0	0
e. identify and analyze problems	25	50	25	0	0
f. select and defend positions	19	19	57	5	0
g. recognize different points of view	19	50	25	6	0
h. evaluate information	11	57	32	0	0
i. make hypotheses inferences	6	50	25	6	13

Teachers perceived that eighty-eight percent of the students usually or always found the unit interesting and enjoyed the activities. Ninety-four percent of the students usually or always increased their basic factual knowledge.

Teachers reported fifty percent of the students usually found the reading level was appropriate while twenty-five percent always and twenty-five percent sometimes found the reading level was appropriate. These perceptions correlate with the demographic data on general student achievement of the pilot sites. Eighty-eight percent of the teachers also reported that the multi-media materials usually or always enhanced learning.

Four concepts or themes had been identified for the fourth grade Virginia Studies program. In this unit, eighty-one percent of the students usually or always increased their understanding of the concept of "interdependence." Seventy-five percent of the students usually or always increased their understanding of "culture" and "tradition," although six percent of the teachers did not see these as major concepts in the unit. Students had slightly more difficulty in understanding the concepts of "change/stability."

Teachers perceived that all students usually or always developed skills in making and interpreting maps, globes, charts, graphs, and pictoral materials thorugh the unit activities. Teachers felt eighty-eight percent of students usually or always learned to locate and gather information, and seventy-five percent of the students learned to identify and analyze problems and to recognize different points of view. Although the majority of the students usually or always developed chronology and time skills and learned to evaluate information, thirty-two percent of the students developed these skills "sometimes." Fifty-seven percent of the students "sometimes" learned to select and defend positions. Although fifty-six percent of the students usually or always learned to make hypotheses/inferences, twenty-five percent did so "sometimes." Thirteen percent of the teachers did not feel this skill was applicable to the unit.

8.A. Which lesson, topics, or activities, if any, were of least interest to the students?

6-none
7-occupations of regions
1-topics of excessive length
1-specific topics mentioned once:
    history of highways, underwater environment, tidewatér plantations, streets, counties, cities, districts
1-skill: time-line

8.B. Specific suggestions for revision:

6-none
3-shorter lessons on each region
3-concentrate more on map skills, omit graph p. 114 and picture, p. 107
1-time-line, p. 156-157
1-give general directions which apply to all home towns
2-format: arrange teacher's edition better in relationship to student pages and have written detail on the same page in the illustration

9.A. What concent or factual knowledge, if any, did students have the most difficulty in learning?

3-none
4-concepts of "interdependence" and "specialization"
2-the difference in crops, natural resources, and products
1-specific topics mentioned once:
    state seal, quarry and coal mining, length of shoreline, fall line, personalities
1-overwhelming amount of information on counties

9.B. Specific suggestions for revision

5-none
2-include vocabulary at the beginning of each unit with concepts and objectives

1-format changes mentioned once:
    shorten unit, add index, include pronunciation key, use chapter numbers, colored maps, questions with each lesson

10.A. Which skills, if any, did students have themost difficulty in learning?

4-none
5-map reading
2-making inferences
2-adding mileage on road map
2-keeping events in chronological order
1-skills mentioned once:
    graphing, some terms, summarizing, drawing conclusions

10.B. Specific suggestions for revision

3-none
8-supply more maps, activities, review skills in student booklet and teacher edition to reinforce map skills
3-explain intersections, "city block"
1-mentioned once:
    put compass and legends on all maps, give brief description on the time line, note if the events predates or postdates a well known major event

11.A. The general reactions of the students were: (Examples are quoted)

6-General: "Loved the unit, learned facts about their state they even related to their parents;" "very favorable;" "good, highly motivated and interested with each lesson."

3-Activities: "The students were very excited about the entire pilot study! They enjoyed the activities and they especially liked the maps/symbols/products." "I felt their reactions were usually very good. They seemed ethusiastic about social studies especially when maps were used. Discussions were always very interesting."

2-Length of unit: "Pupils, in general, enjoyed the unit. It did, however, require more work of them because of the content." "They seemed to enjoy the unit and looked forward to the lessons. They would frequently request extra time to spend on the unit."

2-Difficulty level: "The students were delighted with the unit. The vocabulary gave them no problems which made reading and comprehension easy." "Most of the children liked the unit. We felt it became too long toward the end. The weaker students felt they were bombarded with facts too rapidly. For the good students, this did not present any problems."

11.B. How could positive reactions of students be further enhanced?

3-none
3-more opportunities to use and develop map skills
2-condense, especially "resources"
2-continue each lesson with a suggested activity
1-specifically mentioned one:
  "fun" evaluation after each lesson, more audio-visual, suggested field trips, exercise to be done in book, add more geography

Teacher Questionnaire: Teacher Reactions and Suggestions for Revisions

N = 16

Teacher Reactions	Always	Usually	Sometimes	Seldom	Not Apply
	PERCENTAGES				
1. "Guiding the Reading and Learning" was useful for planning lessons.	69	6	12	6	7
2. Sufficient background information was provided for teacher understanding.	32	50	12	6	0
3. Student activities such as "Try These" were useful for student learning.	25	38	38	0	0
4. Suggested "Optional" activities increased student learning.	38	43	7	12	0
5. Teacher-made supplementary activities were necessary for student learning.	0	43	38	19	0
6. The unit required the usual amount of teacher preparation time.	12	32	6	32	18
7. The unit could be adapted to my style of teaching.	88	12	0	0	0
8. The multi-media materials were easy to manage with students.	50	38	6	0	6
9. The multi-media materials were easy to store.	63	32	0	0	5

The Teachers Edition usually or always provided sufficient background information for teacher understanding for eighty-two percent of the teachers. Directions for guiding the reading and learning was usually or always useful for seventy-five percent of the teachers.

Sixty-three percent of the teachers usually or always found the student activities useful and eighty-three percent of the teachers found the suggested optional activities increased student learning. No teachers found teacher-made supplementary activities were always necessary. However, eighty-one percent of the teachers stated teacher-made supplementary activities were sometimes or usually necessary.

All of the teachers reported the unit could always or usually be adopted to her style of teaching. Forty-two percent of the teachers stated the unit always or usually required the typical amount of teaching preparation time. However, the item was vaguely worded and eighteen percent did not reply. Those reporting the unit seldom required the usual amount of teacher time (32%) could mean it required more or less than usual.

Eighty-eight percent of the teachers stated that the multi-media materials were easy to manage with the students and eighty-five percent stated these materials were easy to store.

10.A. Which content or factual knowledge (lessons or topics), did you have the most difficulty in teaching?

9-none
1-specifically mentioned one:
    Saltville, bridges-tunnels (T-22), farming methods, farming technology, quarrying, state seal, oystering, occupations of each region

10.B. Specific suggestions for revision

8-none
1-more extensive background material
1-specific areas for deletion mentioned once:
    farming methods, quarrying
1-specific areas for expansion mentioned once:
    Carolina County, bridges
1-shorten material
1-present material in story form
1-make descriptions plainer

11.A. Which skills, if any, did you have the most difficulty in teaching?

8-none
8-map skills, specifically mentioned: grids and streets(4),
    intermediate directions (1), polar and equator regions
    on p. 11 (2), labeling forks of Shenandoah River (1)
1-more exercises that would facilitate students in learning
    to summarize, draw conclusions, and make inferences

11.B. Specific suggestions for revision

9-more
2-more information on tropics, polar and equatorial regions,
    compass; scale of km on all maps
1-more exercises provided in students booklets
1-eliminate use of floor maps

12. Which lessons or topics could be deleted, if necessary?

6-individual counties, cities or areas within each region.
    Specific ones mentioned once: Fairfax, Danville, Culpeper,
    Saltville, Wilson
5-occupations/economic resources such as oystering, farming
    technology, quarrying, forestry
3-none
1-places to visit

13.A. Which student activities, if any, would you like to see revised?

10-none
1-map skills review on p. 37
1-"Try This" sections

13.B. Specific suggestions for revision

9-none
1-specific suggestions mentioned once:
    make a scrapbook of Virginia, play recording of Virginia by
    Joseph Cotten, change map skill to a game to prevert
    disinterest, include children with black hair in grouping,
    colored pictures, content should do more into depth

14. Which instructional resources did you provide (i.e., films, filmstrips, records, books, etc.)? Please list by author, title, publication company and date.

Books: Marion Nesbitt and Raymond Dingledine, Jr., Our Home Virginia and the World. Scribner's Sons, 1962.

Marion Nesbitt and Raymond Dingledine, Jr., Virginia's History. Scribner's Sons, 1956.

Library books.

Wayland and MacDonald, History of Virginia for Boys and Girls, MacMillan, 1943.

Dingledine, Barksdale, Nesbitt. Virginia's History and Geography. Scribner's Sons, 1951.

Historical Society, Historic Culpeper, 1972.

World Book Encyclopedia, 1976 ed.

Films/Filmstrips: Virginia Department of Education filmstrips

Filmstrips and transparencies from "The Regions of Virginia"

C & P Telephone Company films

Records: "Virginia" by Joseph Cotten

Maps: Virginia Highways Department

Brochures: famous places in mountain region

Other: field trip to Jamestown
local fireman
local newspaper

15. My general reactions to the unit are:

(Selected examples of typical comments)

General:
7-"This is EXCELLENT! Fourth grade teachers will be eternally grateful for such a 'super' book. It's been a long time coming."

-"Excellent. I enjoyed teaching this unit tremendously. We need this in our schools!"

-"This is an excellent unit of study. It acquaints the students with his home state and provides the students with sufficient drill in a variety of areas of skill. I would love to see every locality in Virginia use Geography and Resources of Virginia in some capacity."

-"I loved the book. All of it was very new to me and therefore exciting. I also enjoyed teaching it more than our regular social studies because the children were more interested and enthusiastic about the book."

2-Teacher's Edition:

-"It's interesting, but a little too detailed to be covered in a limited amount of time. Teacher's Edition is very difficult to teach from."

-"Good, but difficult to choose appropriate activities for each lesson."

3-Difficulty Level:

-"I enjoyed teaching about Virginia and my students did too. But the book moves too slowly for average students. It is not necessary to include all the information about Virginia that is known."

-"I think the unit is great for an average/below average group. I enjoyed teaching it. Would like to use it in my classroom as a textbook."

-"The unit was very informative. Our only problem was in grasping all the ideas. Many felt they were bombarded with facts. Perhaps the writing is too compact for this level. Through discussion we overcame the problems."

2-Length: "Too long"

-"The pupils were facinated in learning so much about Virginia. I do feel, however, that it might be shortened."

Teacher Questionnaire: Dissemination

N = 16

Dissemination	Always	Usually	Sometimes	Seldom	Not Apply
	PERCENTAGES				
1. The unit provided knowledge not usually taught in Virginia studies.	32	50	19	0	0
2. Teachers using the unit for the first time will need extensive in-service training.	0	7	12	69	12
3. Reactions of parents to the pilot unit were favorable.	57	25	0	0	18
4. Reactions of administrators to the pilot unit were favorable.	75	19	6	0	0

Eighty-two percent of the teachers stated that the unit usually or always provided knowledge typically not taught in Virginia studies. However, sixty-nine percent of the teachers felt extensive in-service training was unnecessary while nineteen percent thought extensive in-service training would sometimes or usually be necessary.

Eighty-two percent of the teachers said parent reactions to the pilot unit were usually or always favorable. Ninty-four percent of the teachers stated administrator reactions to the pilot unit were usually or always favorable.

5. Assuming a brief, in-service training will be provided for teachers using the revised unit, what suggestions do you have for an in-service program? For example, what kind of information regarding the content, student activities, etc. would have helped you in teaching the unit?

4-none

6-Map Skills:- "I would like to have had more ways of using both the desk map and the floor maps."

- "Brief training or teaching compass, grids, scales, reading global maps."

3-Teacher Decision-making:

-"Essential skills should be clearly denoted and separated from the other activities more clearly."

-"Overview of lesson, how to use maps to get best results, how best to use units in a self-contained classroom, bibliography of films, filmstrips."

-"Show how lessons can be adopted for use depending on ability level, teacher style, class size. Demonstration lessons. Video-tapes of teachers using materials with students."

2-Teacher Background Material

-"I am a Virginia native and earned my B.S. degree in history and social studies; therefore I consider myself rather capable to teach the unit. I would suggest everyone at least to have a course in Virginia history. Any teacher can wiggle her way through geography just by reading maps of all sorts but to tie it in with the history like you have done, one has to know it well."

-"I would like some of the content (background) further explained. I would like to see a list of resource materials that are available so the information in the book could be better explained and enjoyed."

1-Curriculum Overview

"I would have been helped by knowing just what the booklet covered, what the readability level is, what things in _____ County relate to the unit, what materials are available, and how much of the school year should be devoted to the unit."

Summary

The Geography and Resources of Virginia unit was pilot tested in 16 sites representative of Virginia in terms of social-economic status, racial composition, urban-suburban-rural composition and geographic location. General student achievement in the 16 classrooms was similar to a normal curve: 8 sites had students of average achievement, 4 sites had students of low achievement and 4 sites had students of high achievement.

The amount of teacher usage of the unit varied. The most frequent average time for instruction of the unit was 3 hours per week (8 sites) and the second most frequent average instructional time was 4 hours per week (4 sites). The most frequent length of instructional time was 12-14 weeks (8 sites), followed by 10-12 weeks (3 sites) and over 14 weeks (3 sites).

A random sample of student questionnaires was analyzed. The results confirmed the findings of the teacher questionnaire. Eighty-four percent of the students learned much from the unit and 71% had fun in learning about the geography and resources of their state.

The teacher questionnaire results are summarized below by major topics.

1. Student Interest, Reading Level and Multi-media Activities

Eighty-eight percent of the students found the unit interesting and enjoyed the activities of the unit. Teachers reported that the reading level of the booklet was "usually" appropriate for 50% of the students, "always" appropriate for 25% of the students and "sometimes" appropriate for 25% of the students. This variation correlates with the variability of general student achievement level of the pilot sites. Thus, it seems the unit reading level, according to teacher perceptions, is appropriate for average fourth grade students. Further, the multi-media activities enhanced student learning. Teachers reported that through discussions and other activities, students learned knowledge, skills, and concepts despite reading difficulties of some students. (see below)

2. Basic knowledge

Ninety-four percent of the teachers reported students "always" or "usually" increased their basic factual knowledge about Virginia. Eighty-two percent of the teachers stated the unit provided knowledge never or usually not taught in Virginia studies. Open response comments suggested that the knowledge about Virginia provided in the unit is presently not available in an instructional format and that pilot teachers see the need for students to know the geography and resources of Virginia.

3. Conceptual Development

Four concepts were identified as major concepts for the fourth grade curriculum: 1) change/stability, 2) interdependence, 3) culture, 4) tradition. The Geography and Resources of Virginia is one of three units for the fourth grade. Teachers reported that students "always" or "usually" increased their understanding of these concepts through this unit as follows: interdependence (81%), culture (75%), tradition (75%) and change/stability (69%). It is not clear at this moment whether the curriculum intent is to develop all four concepts equally well in each unit or whether certain units are to develop specific concepts more than other units.

4. Skill Development

Nine general skill areas were identified as major social studies skills for the fourth grade curriculum. Teachers reported that in the Geography and Resources of Virginia unit, students "always" or "usually" learned to 1) make and interpret maps and globes (100%); 2) make and interpret charts, globes, and pictorial materials (100%); 3) locate and gather information (88%); 4) identify and analyze problems (75%); 5) recognize different points of view (69%); 6) evaluate information (68%); 7) chronology and time skills (62%); 8) make hypotheses/inferences (56%); and 9) select and defend positions (38%). It is not clear at this moment whether the curriculum intent is to develop all nine skills equally well in each unit or whether certain units are to develop specific skills more than other units. It seems, from the results of the teacher questionnaire, that this unit develops those skills most appropriate for the Geography and Resources of Virginia.

5. Teachability

"Teachability" refers to the ease which a teacher can use the materials to enhance student learning. Teachers reported that sufficient background information was provided for teacher understanding (82%) and that the unit could be adopted to their particular style of teaching (100%).

Teachers found that the suggested optional activities increased student learning (83%), the directions for "Guiding the Reading and Learning" were useful (75%), and the "Try-These" student activities were helpful (63%). Eighty-one percent of the teachers "usually" or "sometimes" provided teacher-made supplementary activities.

Forty-two percent of the teachers reported the unit required the usual amount of teacher preparation time. Because the item was vague, it is impossible to interpret the remaining teacher responses.

Most teachers (69%) felt extensive in-service training was unnecessary for teachers using the unit for the first time. Some teachers (19%) felt some in-service training would be helpful, especially in specific map skills.

6. Unit Revision Priorities

Many suggestions for revision appear to be idiosyncratic to the particular pilot site. However, certain themes or general concerns were expressed which may be considered for curriculum revision.

a. Map Skills and Other Skills: Although all teachers recognized the unit developed map skills extensively, a number of teachers requested further explanation of some skills, more student activities to develop skills and student exercises to reinforce map skills. If the curriculum intent is to develop other skills such as summarizing and drawing conclusions or inferences, some teachers felt these skills could be emphasized more.

b. Length of Unit: Many teachers felt the unit was too long and detailed, especially for low achievers. Suggested topics for deletion varied although the most frequently mentioned were occupations in each region and individual counties and cities in each region. Teachers of high achievement students felt some details were "common" knowledge and could be omitted. Perhaps, as noted below, teacher reactions to length of unit may be reflecting their experience in teaching a new unit the first time and the difficulty of making instructional decisions.

c. Conceptual Development: Although teachers felt the concept of "interdependence" was well developed in the unit, they also stated they had more difficulty in teaching this concept than other concepts.

d. Format and Instructional Aids: Teachers suggested format changes such as using Chapter numbers, providing a pronunciation key, adding an index. Several teachers suggested more student exercises for each topic. Some teachers suggested providing a list of films/ filmstrips and a bibliography for student and teachers.

e. Aids for Teacher Decision-making: Because of the diversity of the pilot sites and the diversity in Virginia schools, aids for teacher decision-making may increase the "teachability" of the unit. This was expressed in several ways such as the unit "moves too slowly for average students" but slow students were "bombarded with facts." Requests were made for "essential skills" to be clearly denoted and separated from optional or enrichment activities. Some teachers expressed the need for more background information which would enable them to decide what was crucial for their students and which topics should be emphasized. Other teachers requested a curriculum overview and suggestions for how to adopt lessons to different student abilities and teaching styles. Perhaps the comments reflect that teachers are aware that many factors influence effective teaching and one aid is providing information to help teacher decision-making.

7. Dissemination

Eighty-two percent of the teachers said parent reactions and ninety-four percent of the teachers said administrator reactions to the pilot unit were very favorable. All of the teachers were extremely positive about the pilot unit. Teachers wanted to see the unit become an integral part of the fourth grade Virginia studies curriculum. They recognized that, with minor revisions, the unit provided factual information necessary for fourth graders to know about their native state and supplied the instructional strategies to **develop** students' social studies skills and concepts.

Chapter VI

READABILITY

The purpose of this chapter is to define and state the importance of readability in instructional materials and to document the procedures used to determine readability for two fourth grade units in the Commonwealth Studies materials.

Readability Defined

Readability is usually defined as the level at which a student can learn from printed materials, and is usually expressed in terms of grade level. For example, 4.2 has been loosely interpreted to suggest that a student reading as well as the average child who has been in the fourth grade two months can read and learn from these materials.

Readability of the materials is of special importance since readability will influence both the planned use and eventual adoptability of these materials. Moreover, one major reason given for needing new Commonwealth Studies materials was that available print materials on Virginia were not only lacking in comprehensiveness and objectivity, but that readability of surveyed materials was considered inappropriate. This is pointed out in the Commonwealth Studies Project proposal:

> Surveyed print materials were found to be written on reading levels above or below the target grades. Educational research data on the relationship between readability and achievement and attitude support the use of identified reading level as a criteria for selection of instructional materials. (Proposal, p. 31.)

The level of difficulty of materials influence how teachers can use the material since more difficult materials demand a high degree of teacher direction and input. This concern relates to one criteria in the proposal "The Format should reflect multiple teaching and learning styles" (Proposal, p. 29). Materials must lend themselves to independent use as well as teacher directed lessons to be flexible.

Readability is influenced by such factors as the concepts presented, concreteness of examples, redundancy, use of initial organizing and final summary statements, sentence complexity (syntax), sentence length, vocabulary difficulty, interest, and size of type. All these factors interact with characteristics of the reader and the method of presentation of materials. There are many standard methods to measure readability of materials but none of these methods take into account all of the factors noted above. The selection of a readability formula depends upon the planned use of the results. Since there were multiple reasons for establishing readability of the units, four related approaches to assessing readability were used: (1) teacher estimates of appropriateness of material, (2) student's view of readability, (3) Fry Formula, and (4) the Cloze Formula.

The goal in assessing reliability with the first two approaches (teacher and student estimation) was to provide feedback for revision, and data that would be meaningful for later dissemination. If materials were viewed as difficult to to read, piloting teachers would be able to provide input on reasons for this and also to provide the author with ideas or how to make the materials more readable. Teachers and students judgments could also provide feedback on the appropriateness of language and interest level. The last two approaches (Fry, Cloze) would provide a grade level designation need for state adoption of materials. As one P.P.C. member noted "quantifiable data (on readability) is needed." (2/28) All four approaches to establishing readability would provide information on whether students could read and understand (i.e., learn from) these materials.

Planning for Readable Materials

Readability level is influenced by difficulty and density of concepts presented. The background students are provided can facilitate reading. Therefore, the process for establishing characteristics of content and instructional strategies can be examined to determine if initial care was taken to assure that concepts and activities would be appropriate for the designated grade level. Selection of content, concepts, skills and activities for the Commonwealth Studies materials was initiated by consultants and teachers knwoledgeable about and experienced with the intended age level of students (i.e., fourth grade). Content and concepts were considered in teacher workshops in the summers of 1978 and 1979. These workshops helped to establish what teachers expected to teach about Virginia and what these teachers felt that their students should know about Virginia (see Phase I: Planning, p. 66-68).

> The Curriculum Consultant noted that 'the original list (i.e., skills, content) for the workshops was drawn from the VDE K-12 Social Studies Guidelines.' He further explained that the fourth grade skills list were expanded using Virginia county lists and the National Council of Social Studies Curriculum. Ideas for content were drawn also from State Guidelines. (7/80)

During the planning stages external consultants and members of the P.P.C. discussed informally factors influencing readability such as graphics, syntax, etc. Once developed, materials were reviewed and edited by these members.

The selection of specific content, skills and activities was also influenced by content specialists such as Division of Mineral Resources, Division of Forestry and experts in the field of Indian Studies. This input was coordinated by a curriculum consultant, SEA and LEA liaisons, the Project Director and Special Assistant--all of whom were experienced elementary teachers. Thus, the initial formulation of instructional materials would be expected to yield appropriately graded content, concepts, skills and activities.

Teacher View of Readability

The teachers involved in materials development and piloting were to provide the final assessment as the Curriculum Specialist explained:

> I've always said these materials need to go back to the teacher to review (and to determine if) these are things they normally would do with their children. 5/30/79

As part of a pre-interview questionnaire (see Local Piloting, Chapter IV), piloting teachers were asked to consider readability of the units Indians of Virginia and Geography and Resources of Virginia. The five local pilot teachers, who worked with students ranging from below to above average in reading ability all felt that their students were comfortable with the Indian unit materials. On the brief local questionnaire four checked as "very true" that "written materials are understandable to children," one teacher explained that children did have trouble pronouncing Indian names. In the revised edition a guide for pronouncing the names and other terms was provided.

In follow-up teacher interviews on both the Indian and Geography unit there were some teacher differences in opinions on readability as the summary field notes indicate:

> Overall teacher reactions to the Indian unit readability was very positive and enthusiastic, reflecting comments teachers had from children. Children, teachers noted, had 'loved' the unit, 'read it during free time,' 'wanted to keep it,' materials were read 'easily.' Teachers were more cautious but positive in evaluation of readability of the geography unit. They noted more introduction of vocabulary was needed and suggested that some vocabulary could be omitted. They felt that materials were as readable or more readable than the commercial series and felt that the local focus, i.e., on Virginia held the children's interest more. All rated the geography materials as appropriate for fourth grade, but slightly more difficult than the Indian book. Several teachers stated that this was inevitably given the different content. One teacher wondered if more of a story form would help. 6/30

This suggestion and other suggestions on improving readability such as reduction of terms were incorporated into the revised edition.

Child's View of Readability

A brief questionnaire on the Indian unit only (see Appendix) was administered to the 118 children in the five local pilot classes upon completion of the Indian Unit. The children were asked one question relating directly to readability. They were asked to respond to the statement: "I understand what is said as I read the chapters," by circling either 'yes, always,' 'yes, mostly,' 'sometimes,' 'no, not most of the time," or "never." A review of all student questionnaires indicated that over 97 percent responded positively to this question by circling "yes, always" or "yes, mostly."

Children's statements were supported by teacher reactions. The teachers in informal interviews pointed out that children loved reading and rereading the materials found found material highly readable. Teachers explained that the content itself whether Indians or known locations captured the children's interest and contributed to their positive view of readability.

Observations made during classroom lessons on both the Indian and Geography unit suggested children found materials readable.

> All children seem at ease with the Indian materials. A quick spot check, in two classes where evaluator asked children to read or retell a line or two indicated no problems reading. Children reading aloud selections during teacher directed lessons made few errors and responses to questions indicated excellent comprehension.
>
> During the geography lessons observed, there was little direct reading from text. Children occasionally referred to the text for single word answers--scanning for terms or product names or area locations. Children appeared to have little trouble using print materials in this way. Often the text was used as a reference as teacher led the discussion of the information in children text. Most teachers explained that reading was done after initial class discussion as homework. 6/30

Children then stated they found the Indian unit highly readable. Teacher and observer feedback indicate children view the materials of both units as both enjoyable and readable. The more interesting the topic and more story-like (for example, the Indian unit, the history segments in Geography unit), the more readable. The more skill-oriented or information-laden the passage, the more teacher pre-reading activity was used.

Fry Formula: Grade Level of Units

There are numerous readability formulas or ways to compute a grade level score for printed materials. The following background is presented to clarify why the Fry and cloze formulas were chosen. Most formulas require a computation of word difficulty and sentence length. These two factors, as Hittleman in a 1973 issue of Reading Teacher noted are limited but, tend more than other factors to accurately predict readability level (p. 764).

Klare in the 1974-75 Reading Research Quarterly reviewed more than a dozen readability formulas varying in complexity, and concluded:

> Unless a user is interested in doing (basic) research, there is little to be gained from choosing a highly complex formula. A simple two variable formula should be sufficient especially if one of the variables is a word or semantic variable and the other is a sentence or syntactic variable. (p. 96)

The Fry formula considers two variables, word length (i.e., number of syllables in a word) and sentence length (i.e., average length per 100 word passage). The VDE liaison at the February 28th P.P.C. meeting noted that he had computed the readability on three samples each from Geography and Indian units using the Fry formula and results indicated a readability of fourth grade for the Geography unit and third grade for the Indian unit. The evaluator reanalyzed both units using the Fry formula, again sampling three passages from each unit. The analysis confirmed the initial grade level rating. The three passages were selected from the beginning, middle and end of the unit. Story form selections tend to be rated easier (grade 3) largely because the technical terms infrequently appear. Sentence length is consistently brief (10 words) and not complex. It is interesting to the note that the 'old' Virginia History book by Magill had a Fry readability score of sixth grade. Several teachers who were familiar with the Magill books said that they considered this old book 'readable' because of the conversational style employed. The 1965 Dingledine, Barksdale and Nesbitt fourth grade book Virginia's History and Geography book had a Fry readability score ranging from fourth to sixth grade. Teachers who had used this book before it was removed from the State approved list stated, as with the Magill, ease of readability of this book due to the story-like tone. As the Director later explained this feedback was in part the rationale for the style used in the Indian unit and for revising the format of the Geography and Resources of Virginia unit. (7/80)

As FitzGerald in her New Yorker (1979) article confirms, style has a major impact on acceptability and readability of social studies texts. FitzGerald believed this was why Muzzey's American history sold so well--he wrote well. . . (it's) lively and colorful . . . few abstractions. . . and many wonderful stories (p. 71).

The Cloze Procedure: Geography and Resources Unit

At the P.P.C. meeting when the Fry formula results were presented by the VDE liaison, there was a discussion of readability:

> The VDE liaison and evaluators discussed the validity of the Fry formula. The VDE liaison and Director were interested in a second check on readability especially one which involved students. The cloze formula was discussed and agreed upon. 2/28

Since Fry himself in a Reading Teacher (1980) article stated that the Fry formula was in his estimation, accurate only within one grade level, the second approach to validating readability appeared worthwhile. The cloze formula was suggested because, as the VDE liaison noted, "it enabled the children to test the material," and is the reverse of the situation where the materials test the children." Bormuth in the Reading Research Quarterly (1969) called the cloze formula the "best" measure of readability. Carver in another Reading Research Quarterly (1975-76) article explained that the cloze procedure is especially valued since here one considers not only the difficulty of the passage but difficulty in relation to the ability of the students. The goal in using the cloze procedure as the VDE liaison had explained was to look at the materials not in relation to arbitrary standards but in relation to actual student ability and performance. The cloze is especially viable for determining if materials are appropriate for a target population. Moreover, the cloze procedure has been found to correlate well with comprehension scores. Bormuth in Reading Research Quarterly (1969) explains:

> Cloze . . . seems to offer a valid, convenient and completely objective method of constructing tests that can be used for measuring either the reading comprehension ability of students or the comprehension difficulties of passages. (p. 360)

However, as Kaminsky in Reading World explains "the correlation of cloze and test results does not mean that the same cognitive tasks are required." Thus, the only interpretation of results here is an indication of whether students could learn from materials not that they had learned from materials.

The cloze procedure requires deleting each xth word from a passage, leaving a standard length (usually 15-17 spaces) in place of the word and asking children to fill in the blank. Representative passages were selected from the Geography and Resources of Virginia Unit. There was a discussion between the Director, evaluator and VDE liaison on whether to omit each 5th or 7th word in developing the cloze passage. Both procedures are equally valid and although the omission of each seventh word would require a longer passage, (approximately 50 blanks are required) it was agreed that this would be a more appropriate choice for fourth grade students. Pictures appearing with passages were retained since graphics may influence readability. Cloze scores can be passage dependent and several distinct (information oriented, story oriented) types of passages appear in this unit, therefore three different passages were used (i.e., form A, B, C).

The basis for understanding cloze as an assessment of readability is provided by Dawkins in Syntax and Readability. He explains that clear writing gives readers clues for correct predictions (p. 38). The cloze procedure checks the child's ability to predict the missing word. The child, as Bormuth in Elementary English (1968) notes, has eighty percent of the text on which to base responses, so responses very much depend on his ability to understand the text.' (p. 430)

The VDE liaison with input from the Project Director and evaluator selected and prepared the three cloze passages from the geography unit. The Indian Unit had been rated as approximately third grade readability with the Fry formula, given that the formula is correct within one grade level--it appeared that these materials would not be difficult for fourth grade. The unit chosen then for reanalysis was the Geography and Resources unit since the Fry formula rating of fourth grade was within a one year range and the potential range higher than the targed fourth grade.

The Project Director distributed the forms to all five local pilot teachers in late Spring, 1980. Each teacher received all three forms. One third of each class completed form A, one third Form B, and one third Form C. One hundred and eighteen children took the cloze test. The VDE liaison scored and analyzed the results. If the cloze test can be considered a student test of materials then the geography materials passed the test. As Table I, prepared by the VDE liaison indicated over seventy-four percent of the students scored more than forty-four percent on the test, indicating that the great majority of the students could learn from these materials.

TABLE 1

Percent of Total(s) at Difference
Reading Levels Based on Cloze Materials
(N=118)

% Score	Level	#S	% Total(s)
58 - 100	Independent	46	39
44 - 57	Instructional	41	35
0 - 43	Frustration	31	26
	Total	118	100

74% of Total #(s) scored at or above the instructional level on the cloze materials.

The meaning of the cloze ratings designated in Figure I is clarified by Bormuth in an Elementary English (1968) article. Bormuth explains that while traditionally a score of 75% on a comprehensive test indicates materials are suitable for instruction, this traditional 75% is equivalent to the cloze score of 44%. The traditional 90% comprehension score is equivalent to a score of 57% on the cloze (pp. 429-438). A student scoring less than 35% on a cloze test would be exhibiting a minimal information gain. For materials to be considered appropriate for a given grade most students should score 44% or above, as Table I indicates most students could use the geography unit material independently or with minimal instruction, a smaller percentage of children would need more teacher directed instruction.

Information useful for revision purposes was also pulled from the cloze test. The VDE liaison pointed out that an analysis of frequently substituted synonyms for deleted words ("make" for "create," "clips" for "cuts," "a lot: for "a million") might facilitate revision, since the preferred word of students could be used in the revision. Moreover, analyses of frequently missed words and sentence structures with frequently missed words would help pinpoint passages needing rewriting.

Summary

The readability was assessed to a) provide feedback for revision, b) provide a designated grade level, c) provide evidence that children could read and learn from the materials.

Readability of the Indian unit was determined by soliciting teacher and student feedback and the Fry formula. Teachers and students said they found the Indian unit highly readable. The Fry formula rated materials with a grade 3 readability score.

Readability of the Geography and Resources unit was determined by soliciting teacher feedback, the Fry formula and the cloze formula. Teachers rated the materials as appropriate for fourth grade. The Fry formula rated the materials as approximately fourth grade readability. The cloze procedure demonstrated that the majority of children in the pilot schools representing a variety of reading achievement levels could read and learn from the materials.

Feedback from teachers on both units provided suggestions for revision. Some suggestions were specific (i.e., change certain words), some suggestions were broad (i.e., use a story form in the geography). Input is reflected in the revised units. Information potentially helpful for revision was also obtained from childrens' responses to the cloze procedures.

The results seem impressive when one considers that Johnson, in a 1977 review of readability of commercial social studies textbooks found most books for Grade 4, published between 1973-76 had a readability range from 4th to 11th grade. The readability of the units assessed here suggests material will be highly usable.

Chapter VII

SUMMARY AND CONCLUSIONS

The Commonwealth Studies project, after an initial planning year, entered the Phase II-Development and Piloting Phase with the management plan and interagency cooperation arrangements needed for achieving the project goals. During the planning year the major project goal had been clarified: to develop curriculum for fourth and seventh grade basal materials for the study of Virginia. The fourth grade curriculum would provide materials for a year of instruction and the seventh grade curriculum would provide materials for a semester of instruction.

These basal materials were to develop basic skills, knowledge, concepts and attitudes related to Virginia studies through an interdisciplinary, multi-media, multicultural materials. The materials were to have pedagogical and scholarly integrity and be usable and teachable, i.e., adaptable to a variety of teaching styles with a minimum of in-service training.

Producing usable and teachable materials was a major consideration in the 1979-80 curriculum decision-making process. The materials were field-tested to determine teachability, usability, and student readability. Further, curriculum concerns from a variety of sources in Virginia was carefully considered.

The curriculum development became a process of responding actively to input of "significant others." Public hearings on the status of the instruction of Virginia studies and what was needed to teach Virginia studies had been held across the state, Spring, 1979. The Virginia

Department of Education had surveyed views of school personnel on what was needed to teach Virginia studies and amount of classroom time allocated and desirable for the teaching of Virginia studies. The results of these hearings and survey indicated a strong public and teacher preference for text materials. This, plus feedback from a variety of consultants and piloting teachers resulted in a text orientation. Budget and time considerations also influenced this and other curriculum decisions, such as the decision to combine two fourth grade units.

The specific objectives of the 1979-80 year were 1) to develop, produce and pilot fourth grade state studies materials, and 2) to subcontract the development of seventh grade units to content/curriculum experts. The tasks of developing, producing and piloting basal materials were accomplished by enlarging the staff. A full-time special assistant, three quarter-time project assistants and several part-time hourly assistants aided the Project Director and project secretary.

Specific accomplishments in 1979-80 were 1) the production of student and teacher print materials for two fourth grade units, 2) local piloting of two fourth grade units, 3) state piloting of one fourth grade unit, 4) production and piloting of fourth grade walk-on and desk maps, 5) production of the seventh grade desk map, 6) development of an introductory animated film, 7) the establishment of readability of fourth grade units, 8) the appointment of seventh grade materials writing team and 9) the dissemination of project goals to appropriate state organizations and school divisions.

Decisions made during the curriculum development process resulted in a curriculum congruent with original project goals and responsive to the emerging needs and goals for Virginia studies articulated throughout the state.

Local piloting at five Hanover schools of the Indian unit and Geography and Resource unit indicate that these materials were highly usable and teachable. Teachers and students were enthusiastic about the materials. State piloting of the Geography and Resources Unit in 11 representative Virginia sites and 5 local sites provided further information on teachability of materials and provided information helpful for revision. The great majority of both teachers and students indicated that much had been learned from materials and that these materials were "fun to use." General suggestions for revision includes requests for more extensive explanation of map skills, more story-type presentation of the Geography and Resources Unit, more student activities and exercises. Teachers felt the unit was too long and requested format change. These suggestions were incorporated into the final revision. Pilot teachers felt the materials, upon revision, should be used throughout Virginia.

Readability of two fourth grade units was assessed by standard formulas (Fry, cloze) and through teacher and student feedback. Both the Indian Unit and Geography and Resources of Virginia Unit were considered by teachers and students appropriate for fourth grade level. The Fry formula and cloze procedure also designated readability as appropriate for fourth grade students.

The positive reception of the materials by all participants involved in the curriculum development process and the piloting reaffirms that a major education need is being met through the project.

Recommendations

1) Continuous planning by Director and the P.P.S. regarding completion of state piloting of the revised Indian unit and the story of Virginia unit.

2) Continuous planning and monitoring by Director and P.P.C. to insure completion of the seventh grade units and to insure review of units.

3) Continuous investigation of alternative methods to disseminate the piloted fourth grade units and the seventh grade units (not piloted) within the existing constraints of time and budget. These alternatives should be presented to appropriate Virginia Department of Education officials.

4) Continued development of a skill matrix.

5) Planning for the animated film to be critically reviewed for pedagogical and scholarly integrity.

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Part of the curriculum development process was changing the initial conceptualization of some individuals from that of developing "materials" to that of developing a "curriculum." Now envisioned were the curriculum components of objectives, content or knowledge, instructional strategies, and a teachers guide. For teachers to design and write a curriculum, organizational support systems were identified such as released, concentrated time in a structured framework under the direction of a Curriculum Specialist with the assistance of others, and a state-studies resource center. The central role of the teachers in designing and writing the curriculum has been maintained in the first project year.

Also planned in more detail is the entire curriculum development process. This includes 1) planning (i.e., conceptualization, research), 2) production (i.e., teacher and student written materials, Teacher's Guide, instructional tools and strategies reviewed by P.P.C. members and revision), and 3) evaluation. Evaluation consists of County piloting, evaluation, revision and Commonwealth piloting, evaluation, revision and editing with review by P.P.C. Target dates for each phase have been specified.

(4) Obtaining the cooperation of state agencies in developing instructional tools for the "kit" was an accomplishment. With the assistance of the SEA Liaison, mechanisms were developed by which different state divisions, departments, commissions, museums, and libraries would be invited to participate. This involved the Virginia Secretary of Education, Secretary of Transportation, Secretary of Commerce and Resources, and Secretary and Superintendent of Public Instruction.

Inquiries were made of private organizations regarding contract specifications for other instructional materials such as maps. Fiscal caution was exercised in obtaining estimates from several corporations.

(5) In a Planning Phase, perhaps more important than specific accomplishments or tangible products are the decisions made which will shape the future years of the project and ultimately the curriculum's quality, usability by teachers, and adoption by school divisions. Such decision-making requires an assessment of what is feasible and an awareness of the educational climate in Virginia. As one P.P.C. member noted, there was a fourth innovation implied in the Proposal: "the courage to pursue excellence in an untried road--to produce more than a guide or supplemental materials."

The project Director stated, "We made some fundamental decisions this year." First, the project would develop both fourth grade and seventh grade basal state-studies curriculums. Second, teachers would design, write, and field-test the state-studies curriculums with the assistance of scholars and educators and the resources of public and private organizations. Third, an interagency model of curriculum development and continuous planning would be implemented. The evaluation data suggest that these decisions were "fundamental." It is noteworthy that the Director had the foresight to see that these decisions were made during Phase I - Planning. These decisions were made by group consensus and incremental planning with an increasing realistic awareness of the task ahead. These kinds of fundamental decisions about the project goal, the roles of the participants, and the processes would provide the necessary direction and rationale for future tasks and project components.

Perhaps the statement by one P.P.C. member best summarizes the importance of the Planning Phase. He said, "The major accomplishment of the first year was developing the process--all components. We have a clearer ability to see and establish time frames. The whole thing is process! It was realizing we needed a process and orienting ourselves to a process . . . never done this before. Also, realizing the magnitude and the scope of it because we don't want to lower our goals."

RECOMMENDATIONS FOR FUTURE PLANNING

The evaluation data suggest the following implications for future planning.

1. Curriculum Development

Discussions on two characteristics of the intended curriculum will probably reoccur as units go through the developmental cycle. First, the notion of "teacher proof" in contrast to "flexibility" for different teaching styles seems to imply different instructional strategies and teaching suggestions. A related second concept is that of a basal multimedia curriculum. Stated more specifically, how will the non-print materials of units be used for instruction in relation to the print materials --as basal or as supplementary activities? Verification of the content and pedagogical basis of the curriculum appears to be necessary through reviewers and field-testing.

2. Continuous Planning

Two approaches to curriculum development are planned for next year. Teachers will continue to develop the fourth grade units and the seventh grade units will be done by scholars. All units are expected to be field-tested and revised. Units are planned to be at different stages of the development cycle at different times. Obtaining selected instructional tools from private and public organizations may be necessary to pilot certain units during 1979-1980. In addition, pilot sites must be organized and evaluation designs formalized.

Thus, the demands on coordination, supervision, and sequencing of components will increase. Planning should take into consideration the possibility of unanticipated events beyond the control of the project such as illness, staff turn over, inflation, etc. The more organizations and individuals involved in the project, the more complex the management task may become.

Planning should include flexible time frames for certain components and reserves in both personnel and monies. This may allow the project to choose alternatives while continuing the curriculum development process. In long range planning with sequencing of phases and components, an incomplete phase or component may necessitate the extension of the entire process.

3. Management

The accomplishments of the Planning Phase have been done with one full-time staff member, the Director. The Development Phase will increase management tasks, noted already by project specialists and the Title IV-C Monitoring Team. Additional full-time staff was essential. Reliance on specialists who are part-time staff increases the communication, coordination, supervisory and follow-up functions of management. Some of these functions might be delegated to a full-time assistant. Other management tasks such as negotiating contracts, spokesman for the project, dissemination, obtaining specialists and the pilot sites cannot be easily delegated.

In addition, if the emphasis on multi-media materials continues and with multiple copies of the units required for piloting, a media specialist and production supervisor or persons assuming these roles may be necessary. Mass production of each type of media is a specialized field requiring technical knowledge of slides, maps, photographs, charts, print materials, films, and artifacts. Unless this technical assistance can be obtained from state or commercial agencies, some other move to obtain this expertise may be required. Other tasks which may need further planning are procedures for identifying expertness and obtaining specialists when needed. With piloting and revision of units planned for 1979-80, the demands on secretarial services may increase.

Communication among project participants appears to be increasingly important. For the best utilization of specialists' skills, there must be a mutual understanding of the curriculum as it develops and of the project as it moves into different phases. Regular P.P.C. meetings are also necessary for information sharing and confirmation of decisions. Individual conferences and small group meetings, especially for the development of units by teachers and scholars, may have to occur more frequently in view of the projected target dates.

4. Evaluation

The evaluation focus will change as the units are piloted. Formative evaluation designs and procedures will have to be planned with the Director and Curriculum Specialist for the data to be useful for unit revisions. The procedures utilized partially depend on the number and location of the pilot sites. Title IV-C evaluation guidelines require management and planning be continuously evaluated. Because of the diversity of the evaluation focus, it seems necessary to continue with two Evaluation Specialists.

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